REGIONAL OFFICE FOR THE WESTERN PACIFIC
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REPORT ON THE FIRST REGIONAL SEMINAR ON RURAL HEALTH SERVICES

Taiwan, Republic of China, 21 November - 5 December 1962

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FIRST REGIONAL SEMINAR ON RURAL HEALTH SERVICES

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TAIWAN, REPUBLIC OF CHINA

21 November - 5 December 1962

FINAL REPORT

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NOTE

The views expressed in this report are those of the advisers and participants at the seminar and do not necessarily reflect the policy of the World Health Organization.

This report has been prepared by the Regional Office for the Western Pacific of the World Health Organization for governments of Member countries in the Region and for those who participated in the Seminar on Rural Health Services, Taiwan, Republic of China, 21 November - 5 December 1962. A limited number of copies are available on request to persons officially or professionally concerned in this field of study.

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1. INTRODUCTION

The opening ceremony was held on 21 November 1962 at the City Hall in Taipei.

During his address, Dr. I.C. Fang, Regional Director of the WHO Regional Office for the Western Pacific, stressed particularly the vital question of community participation in rural health schemes and underlined the fact that no enduring results could be achieved without the full co-operation and understanding of the community. From the very outset each community should share at least a part of the cost of the local health services in addition to whatever direct co-operative action of the population might be needed. The Regional Director also referred to the present practice of undertaking broad social programmes in rural areas and stated that it promoted concerted action between the agencies involved and helped develop community participation in planning and in implementing these programmes. For broad fields such as nutrition or environmental health, co-operative action between health workers and workers of other disciplines was an essential part of the total programme.

Dr. Chiang Monlin, Chairman of the Joint Commission on Rural Reconstruction (JCRR) of the Republic of China, referred to the rapidity of the changes taking place in the rural areas and welcomed the speeding up of the modernization of rural communities. He underlined the important part to be played by rural health workers in planning and accelerating this socio-economic development. Like the Regional Director, he also emphasized the importance of community participation and self-help and mentioned the programme of intensive village improvement in Taiwan in which health workers had been playing a leading role in promoting family health on a village-wide basis. He considered that the primary objectives were to establish adequate nation-wide rural health facilities and to control the major communicable diseases. A programme of environmental sanitation improvement should be established and the essential role of health education in health programmes was noted.

Dr. T. Evans, the Seminar Director, briefly indicated the lines on which the work of the Seminar would be carried on and thanked the Regional Director and Dr. Monlin for stressing certain very important points which would be borne in mind during the discussions.

Those taking part in the Seminar went to Taichung by bus shortly after the conclusion of the opening ceremony. The first hour of the opening plenary session, which was held the following morning at the Teachers' Hostel, Taichung, was devoted to an explanation of the manner in which it was proposed to conduct the Seminar. The suggestions were accepted and the discussion topics adopted. The discussion topics had been chosen so as to cover the agreed objectives of the Seminar as defined by WHO. These objectives were:

(1) to review concepts and practices and to exchange views on rural health services administration in countries in the Western Pacific Region;

(2) to develop guiding principles for the planning, administration and evaluation of the rural health services, including consideration of the staffing, training and integration of health and medical activities;

(3) to explore available resources which might help rural health development (local, national, or external) and to identify areas for co-operative action between health and other agencies operating at the local level.

The working plan of the Seminar was as follows:

(1) introduction of the discussion topic in plenary session;

(2) group discussion of the topic;

(3) plenary session to co-ordinate the group reports and reach an agreed conclusion.

The participants, observers and WHO resource persons were divided into three groups which remained constant throughout the Seminar. For each discussion topic the group elected a chairman and a rapporteur. A member of the seminar staff joined each group to provide help and guidance as needed. The seminar staff had prepared a suggested discussion guide for each topic to help each group to plan the scope of its discussions. This was distributed beforehand and it was made clear that it was only intended as a guide, to be used or not, as the participants wished, and was not intended in any way to limit their freedom of discussion.

On the conclusion of the discussion of the topic, each group report was prepared by the chairman and the rapporteur, assisted by the seminar staff and resource persons. The reports were then presented to the plenary session at which the total group opinions were co-ordinated. The members of the seminar staff remained with the same group during the discussion of a particular topic and rotated for the next topic so as to give each member experience of each group.

There was no formal steering committee. The seminar staff considered that when necessary they could obtain advice (ad hoc) from selected persons who seemed most qualified to give help. This method worked satisfactorily.

On 24 November, a field visit was made to Nantou County to see the intensive village health programme in Yushih Li of Tsaotun Township and the Taichung Region integrated health programme. The Nantou County Health Bureau and Nantou County Hospital were visited and also the Mingchian Health Station.

The village health programme is the initial and an important phase of an intensive village improvement programme which is a joint activity of the local government and the people. This programme was stimulated by the JCRR and all levels of government are actively promoting it. In this work, health personnel have been playing a leading role. Intensive village improvement guidance committees, composed of chiefs of official and voluntary organizations, are organized at various levels, and there is a village improvement working group which includes a nurse and a sanitarian of the township health station, along with other workers such as primary school teachers and home economic workers.

The visit to Yushih Li was very interesting and demonstrated the progress which had been made. Particular stress is laid on personal hygiene in the home and considerable success has been obtained in this field. The integrated health project for the Taichung Region, of which the group saw something in Nantou County, is one of three such pilot projects in Taiwan, and its object is to bring all preventive and curative services in the pilot region under the single direction of one regional officer.

In the visit to the Environmental Sanitation Training Centre, Pingtung, the group was enabled, in addition to learning about the training programmes carried out there, to see the pasteurization of night-soil by steam. This is a procedure designed to render the night-soil safe and after the heating process it is sold to farmers for use as a fertilizer. For individual farmers, the health department has devised safe methods of composting, using night-soil and waste from the pig pens and refuse. Compost made in this way is considered safe for use as a fertilizer after about two-and-a-half months' storage. The use of human night-soil as fertilizer has long been traditional in China and this is a habit which cannot be abolished overnight due to strong public opinion on the part of the rural farmers who favour its use. While considerable progress has been made in encouraging the use of chemical fertilizers, it will be many years before the use of human night-soil as a fertilizer will disappear. In the meantime, the Government is developing methods to make the use of night-soil as a fertilizer as unobjectionable and as safe as possible.

During the visit to the Taiwan Malaria Research Institute (TAMRI), the group learned from Dr. Wan-I Ch'en, the Director of the Institute, about the role of the local health services in the malaria eradication campaign.

In the pre-spraying period, the local health services had provided basic information about the characteristics of local malaria and had participated in some of the initial malariometric and entomological surveys and in socio-economic investigations. During the spraying operations they provided supervisors and foremen and disseminated information. A contribution was also made from the local health service budget for the recruitment and training of spraymen and helpers. In the surveillance operations they took part in both active and passive case detection and they are the main source of part-time blood collectors, drug distributors, local supervisors and part-time microscopists. In addition, the malaria service has posted a number of full-time blood collectors to the health stations whose normal workload is too heavy to enable them to carry out the special work without help.

In the maintenance phase, the local health services are accepting responsibility for all maintenance activities, except the epidemiological investigation of proved cases. They also serve as centres for the parasitological diagnosis of malaria.

The closing ceremony of the Seminar was held on 5 December at 11:00 a.m.

Dr. C.K. Chang, Director, Department of Health Administration of the Ministry of Interior, represented the Government at the closing ceremony. Dr. C.H. Yen, Commissioner of Health, was also present.

Dr. A.A. Angara, WHO Regional Adviser on Public Health Administration, thanked the Government for the excellent arrangements made for the accommodation of the Seminar and the participants, and Dr. L.W. Jayesuria expressed thanks on behalf of the participants, stressing particularly their appreciation of all that the Host Government had done for them.

After Dr. Jayesuria's address, Dr. Evans gave a brief summary of the work of the Seminar.

The concluding speech was made by Dr. C.K. Chang who expressed the pleasure of the Chinese Government at having served as host and stated that he was sure that the deliberations of the seminar would be of great value not only to the Western Pacific Region but beyond the regional limits.

2. DISCUSSIONS

2.1 Report on Topic No. 1 : To what extent are the total health needs of the rural population now being met and in what direction should future developments take place.

2.1.2 Introductory remarks

In the discussion guide prepared for the first topic, it was suggested that consideration should be given to methods of ascertaining the health needs of the rural population and to reviewing the resources available to meet those needs. Any special problems should also be taken into consideration. The basic services to be provided, the question of the use of static or mobile units and the staffing patterns established should be reviewed. Methods of attracting and retaining staff for service in rural areas were to be studied, as also was the question of supervision, the degree of autonomy which could be given to the local health services and the freedom to use initiative which could be allowed to the staff. The role of the rural health staff in programme planning should be taken into account and the organizational and administrative patterns of the rural health services reviewed.

A general review of the reaction of the groups to this topic indicated that it served as a useful general introduction to the Seminar and as a preparation for the subsequent more specific topics.

The two days allowed for the group discussion of this topic appeared to be reasonably adequate. During the first day, not a great deal of progress was made and the discussions were somewhat inconclusive; this was understandable as the groups had not yet got to know each other and the ice had not completely been broken. However, before the end of the second day, free discussions were taking place and a very friendly, informal and relaxed atmosphere was evident during the rest of the Seminar with free and frank discussions in which everybody participated.

The detailed report of this topic which follows indicates the broad general trends of the discussions which naturally ranged over a wide variety of aspects of rural health work and pointed to some interesting general conclusions.

2.1.3 Analysis of group reports on Topic No. 1, report of plenary discussion of the topic and general conclusions

An analysis of the group reports indicated that it was necessary to be fully aware of, and to keep in touch with, the health needs of the population. It was also necessary for the health organization to be able accurately to assess those needs and decide their priority so that the services provided should as far as practicable meet requirements. It was regarded as important to remember that every effort should be made to ascertain the "felt needs" of the people, bearing in mind that those expressed by the people themselves might differ considerably from those recognized by the trained public health worker. For example, a community may express a need for skilled help in deliveries but it may require much effort to convince it of the need for an organized maternal and child health service with ante-natal, post-natal, and well-baby clinics. In cases where the needs expressed by the people coincide with what they require from the health point of view, their co-operation is assured, but in many important health programmes health education will be necessary if the people are to understand and support the programme. Only by so convincing them will it be possible to ensure their full co-operation, without which the programme is unlikely to succeed.

The groups considered that there were many sources of information from which the health department could ascertain the needs, apart from those sources available within the department itself. Such external sources of information include:

(1) government departments, e.g., the Education Department;
(2) civic groups, e.g., women's clubs or similar associations;
(3) the press;
(4) village chiefs;
(5) missionaries, religious leaders;
(6) the results of specific surveys which may disclose relevant information regarding health needs outside the actual terms of reference of the survey.

It was pointed out that some of the above-mentioned sources of information could also be used to assist in the programme when this was developed. It was considered that in some instances a formal survey to ascertain needs would be necessary. In other cases, information obtained within the health service itself, or from other sources listed above, would suffice.

The services to be provided by a rural health unit should be based on the needs to be met but it is evident that the scope of the services must depend upon the ability of the country to furnish the necessary qualified staff and the organization to enable the staff to operate effectively. The countries in the Region vary greatly so far as their resources are concerned. From this, it follows that the services they can provide will vary from very modest to highly organized and comprehensive ones.

Broadly speaking, the groups considered that the services should comprise:

(1) maternal and child health services which, when possible and depending on the needs, would include school health and school dental services. It was pointed out that guidance in mental and social adjustments was always needed in childhood and staff should be prepared to give this help where necessary;

(2) communicable disease control;

(3) environmental health;

(4) maintenance of records for statistical purposes;

(5) health education of the public;

(6) public health nursing;

(7) medical care which would include dental care apart from the school dental services already mentioned under MCH services. The extent of these services would vary according to the needs of the area and the availability of facilities other than the rural health unit.

It is regarded as desirable that rural health units should have facilities and staff to carry out simple laboratory procedures such as examination of stools, urine examination, blood count. It is assumed that referral services at higher levels will be available.

These services are regarded as basic, that is to say, they cover the needs which will be found in all countries. It was noted that countries which had adopted a national family planning policy operated this as a part of the MCH services.

It was realized that only the more advanced countries could give full scope to these services. Other countries could only provide as comprehensive a service as was possible with the resources available. Hindrances to progress include:

(1) staff shortages and unwillingness of staff to serve in rural areas, and unsuitably trained staff;

(2) lack of co-operation on the part of the population;

(3) diversity of customs, tribes and dialects;

(4) transport and communication difficulties;

(5) in some countries, disturbed internal conditions.

Broadly speaking, it was considered that the success of any programme depended on three factors:

(1) the proper technical planning and administration of the programme;

(2) competent staff;

(3) co-operation of the population.

Much attention was devoted to the question of how to encourage staff to serve in rural areas and it was considered that, where necessary, certain inducements might be offered. These included:

(1) adequate housing;

(2) incentive pay which could be in the form of extra allowances in addition to the monthly salary, or a monetary grant or bonus for service in an isolated area;

(3) good promotion prospects, such as service rendered in rural areas as an entitlement for accelerated promotion to higher grades in the service;

(4) allowing rural areas to have priority for drugs and equipment instead of being last in the supply line;

(5) education facilities for staff members and their families;

(6) remove the fear that the rural health service is a "dead-end";

(7) the granting of fellowships to local people who would sign an agreement to serve the local area after training;

(8) service in rural areas instead of military service;

(9) arrange, at government expense, visits for rural health workers to other areas in the country for study and vacation.

Another possibility is to require a newly graduated doctor to serve the government for one year in a rural area before he is allowed to take further clinical training in a government hospital.

The staffing patterns of rural health units vary considerably even within countries and they depend on the availability of personnel. It was agreed that, whenever possible, the rural health unit should be under the charge of a medical officer, and that it was desirable that it should have a complement consisting of the following disciplines: doctors, public health nurses, midwives, and sanitary inspectors thus enabling the team approach to be used. It was realized, however, that this pattern could not be applied everywhere. Conditions varied so much within some countries that it was not possible to lay down universal standards for staffing rural health units based on population figures, although this worked well in other countries where conditions were less variable. Undoubtedly, it made planning easier to be able to follow a standard pattern but many countries had no option but to adopt the policy of doing the best they could to meet their needs with the resources at their disposal.

The general opinion was that reporting should be as simple as possible and confined to what was really useful and necessary. Those who had to prepare reports should know that their reports were being made use of at the higher level.

It was pointed out that the rural health staff should have a role to play in programme planning and that they should be given opportunities to develop and use their initiative. This would also do a great deal to keep up their morale. Organizational and administrative patterns influence the degree of freedom at the local level. In some cases, a great deal of responsibility and initiative is permitted but it was generally felt that there was need for administrative guidelines from the higher levels while providing for an exchange of opinions up and down the administrative line. It was noted that pilot and demonstration projects could provide good opportunities for staff to exercise initiative and adaptability. The people should also take part in programme planning so that from the very start they may feel that they have a say in what is being prepared. This can be done by arranging for representatives of the people to sit on appropriate statutory or advisory committees or boards (e.g., development committees) at the local, intermediate, and higher levels. Co-operation should be stimulated by health education.

The question was raised on several occasions during the Seminar as to whether health programmes should be directed to economic ends. It was concluded that it was necessary to provide in the first instance the essential basic health services for the whole community and, secondly, to lay emphasis on special programmes such as malaria control and eradication which undoubtedly contributed substantially to economic development.

Consideration was also given to the question of the value and use of mobile units in rural health work. In general, it was considered that static units were preferable but it was pointed out that static units made use of mobile teams to visit sub-centres and remote areas. It was considered that mobile units might be needed for sparsely populated spread-out areas or for isolated groups, or in connexion with special programmes such as yaws campaigns.

During the plenary discussion, in the course of which views were exchanged on a wide range of subjects, various speakers stressed the following points:

(1) The importance of nutrition education in rural areas and the desirability of the rural health staff being in a position to give advice regarding such subjects as suitable feeding for the family, the correct methods of cooking various foodstuffs, good dietary habits, etc.,; this necessitated suitable nutrition training for rural health unit staff.

(2) The importance of health education of the public and, in particular, the opportunities provided the rural health unit staff to undertake this in their daily work. A health education specialist should be available at higher levels to assist in organizing health education activities, to conduct research and to evaluate results. The specialist should also give advice and guidance in respect of health education problems, keep personnel abreast of new techniques and train staff.

(3) The necessity of integrating curative and preventive services at the rural health unit level and of co-ordinating them at all levels.

(4) The hindrance to rural health campaigns which could result from the lack of health education material. Such material was fairly readily available in many countries in respect of some subjects but there were a number of serious gaps. It was suggested that the WHO Regional Office should be approached by countries finding difficulty in obtaining the material they needed as WHO could very likely help. Some countries were well provided with this type of material and would be willing to help those needing it. It was a question of knowing the sources of supply and being able to put donors in touch with recipients.

(5) The need for training audio-visual aid officers was felt in some countries in the Region. It was suggested that WHO might consider arranging training courses as an inter-country project in view of the value of audio-visual aids in rural health work.

Some mention was made of the multi-purpose village health worker. It was important that this worker should not be confused with the multi-purpose village worker of the community development department. The multi-purpose village health worker is an auxiliary rural health worker and is a member of the staff of a rural health unit. The duties of such workers include investigations into communicable diseases, and such work as taking blood slides in suspected malaria cases, simple medication and first-aid treatment, work in connexion with tuberculosis control such as distribution of medicine, tuberculin testing, and BCG vaccination, the implementation of simple environmental sanitation measures, etc.

Auxiliary rural health workers may have been employed on national disease campaigns, such as yaws or tuberculosis control campaigns, and have received a further training as required on conclusion of the campaign in question, or they may have been engaged and given specific training for the duties they are to perform.

The above description is taken from the outline of a development plan for a comprehensive area (rural) health service in North Borneo.

2.2 Report on Topic No. 2 : What are the principal problems in providing family health services in rural areas and how may these be solved.

2.2.1 Introductory remark

In the discussion guide prepared for Topic No. 2, it was suggested that the subject might be approached by reviewing the ways in which health workers could arrange for health care, using the family as a unit of service and the teamwork necessary to achieve this. The general steps to modify the organization, supervision and staffing of the MCH services were also suggested for consideration. The subject provoked lively discussion both in the groups and in the plenary session and there were a number of differences of opinion as to the importance which should be given to family-centred health care in the overall services rendered by a rural health unit. To some participants this concept was a new one and many questions were raised. The use of the term "family health service" produced some discussion since this title could give the impression that a family health service was one of the basic services to be provided by a rural health unit. To avoid misconceptions, it seemed desirable to use either the term "family health care" or the term "family-centred health care".

The detailed report of this topic which follows indicates that finally the correct perspective was restored and agreement reached on the place of family health care in the overall work of a rural health unit.

2.2.2 Analysis of group reports on Topic No. 2, report of plenary discussion of the topic and general conclusions

In the discussion of the use of the family as a unit of service, it was recognized that the public health nurse played a key role in the provision of family health care, but emphasis was placed on the need for such an approach by all categories of workers, and among all units of the health department providing personal health services and encouraging changes in the home environment. It was pointed out that the health care of the individual was indispensable to a family-centred service and that his health problems could not be divorced from his family and his social and physical environment.

Some of the problems mentioned by the groups as affecting the use of the family as a unit of service were:

(1) lack of understanding and acceptance of its importance by health administrators and personnel at all levels;

(2) insufficient emphasis on the contribution of all team members to family health;

(3) inadequate services because of limitations in health personnel and facilities, and of difficulties in providing care, particularly in remote areas;

(4) inadequate planning and/or co-ordination of services among personnel and programmes in health agencies and between health and other community agencies;

(5) lack of a simple family record where care given to members of a family could be noted.

The groups were generally agreed that the development and expansion of family health care required both policy and methodological changes, as well as re-orientation of personnel within the health agency itself. Some of the specific suggestions were:

(1) the development of an awareness on the part of the staff members of the value of family health care and a readiness to accept their respective responsibilities;

(2) the delineation of the functions and responsibilities of health workers in relation to the use of the family as a unit of service;

(3) a more systematic planning of the day-to-day activities of health workers to meet family needs, the co-ordination of visits by the various team members, a system of cross-referrals between team members and the economy in the utilization of health personnel thus avoiding multiplicity of visits to one family;

(4) co-ordination at the lowest possible level of the work of health personnel with that of personnel in education, agriculture, social welfare, etc.;

(5) provision for basic data on family members to be readily available to health workers. Wherever practicable, such data should be compiled in a family folder, and kept in a place convenient to personnel who are giving service.

The use of the family as a unit of service for health care was considered applicable and important when rendering basic health services in the community. However, it was pointed out that the various services needed to be co-ordinated at the family level to avoid fragmentation of effort and to ensure the best possible use of the time of the health personnel.

The provision of family health care requires a high degree of teamwork among doctors, public health nurses, midwives, sanitarians and others who are providing essential health services. Regular meetings of members of the health teams were suggested to discuss specific problems of families and to plan for a co-ordinated approach in providing needed services. It was recognized that the success of the team approach depended upon (1) mutual acceptance of the functions and duties of each category and effective referral procedures and working relationships among staff members, (2) leadership and initiative by

the medical officer who is the administrative head of the local health unit, and (3) orientation and continuous in-service training of all health personnel.

2.3 Report on Topic No. 3 : What should be the role of the health services in the improvement of sanitation in rural areas, and what steps are necessary to achieve this improvement.

2.3.1 Introductory remark

In the discussion guide for Topic No. 3, it was proposed that consideration should be given to the objectives of the rural health services in sanitation programmes, to the priorities and to the methods of achieving the objectives. The standards for rural water supply and excreta disposal should be reviewed. The relationship of the health services to local government bodies and village councils in regard to sanitation was mentioned. It was suggested that the qualifications of sanitation staff, their duties, in particular the question of their performing immunizations and clerical work, their role as part of a team, should be studied.

The detailed report which follows describes the discussions and indicates the conclusions reached.

2.3.2 Analysis of group reports on Topic No. 3, report of plenary discussion of the topic and general conclusions

2.3.2.1 Objectives and priorities

In the field of environmental health it was agreed that the objectives of the rural health services were:

(1) the control of those communicable diseases related to the environment;

(2) the promotion of healthful living through environmental control. The achievement of this objective requires more than construction; it also requires a change in the practices and attitudes of the rural people who must willingly accept the facilities constructed, know how to use them, and understand their purpose.

Priorities in the rural sanitation programme were agreed to be the provision of potable water and the sanitary disposal of human excreta. Other important fields not necessarily in the order of priority were: refuse disposal, food sanitation, control of flies, mosquitoes, rats and other vectors, general cleanliness of the home and its surroundings, including the disposal of waste water and personal cleanliness.

It was, however, agreed that it was not always practical, or best, to stress first those programmes which the health services knew were the most important. Certainly the health services should make an effort to be selective, to expend money and effort first where the greatest improvements in sanitation and health were to be expected, but an important consideration in setting priorities was what the rural people felt was needed. The importance of the health services setting an example was also stressed.

2.3.2.2 Standards for rural water supply

In considering rural water supply standards, the following conclusions were drawn:

(1) Rural people should have water free from pathogenic organisms, conveniently supplied to them in adequate quantities. The bacteriological standards commonly applied to piped and chlorinated urban water supplies are unnecessarily high for small unchlorinated rural water supplies, but reasonable standards should be met. Adequate quantity and convenience of water are important in personal cleanliness which has a great effect on the incidence of intestinal infections.

(2) A piped treated water delivered to each house is the ideal rural water supply but it is frequently not possible to provide this.

(3) The next most desirable source of water is the protected spring or well. The word "protected" implies a concrete cover, a proper lining, and the provision of a hand pump, all of which would protect the ground water from surface or shallow sub-surface pollution and preserve its normal natural freedom from pathogenic bacteria. As it is easier to protect, the drilled or tube well is preferable to the dug well.

(4) The taking of water from wells or springs by rope and bucket should be discouraged as it results in contamination of the well or spring. Hand pumps should be provided whenever possible. However, precautions must be taken to keep hand pumps operating in areas unaccustomed to them. Stocks of parts may be kept in the village and village people trained in pump repair. Wells used by many people may be equipped with two pumps. Dug wells may have a curbed covered manhole through which water can be taken with a rope and bucket if the pump fails.

(5) Sanitary surveys should be made of all rural water supplies. If indicated by the survey, water samples should be collected for bacteriological and chemical analysis. However, the survey is primary, not the samples.

(6) To ensure their use, new wells should preferably be located near the old or insanitary wells which they are intended to replace.

(7) Water may be taken from surface sources for large village piped water systems, for which simple filters may be constructed.

(8) Chlorination cannot be relied on to disinfect water unless the process is closely controlled and supervised, and this is seldom practicable in rural areas.

(9) Boiling is a very reliable means of disinfection and should be recommended for all questionable sources.

(10) Rain water can be a good source of water in rural areas when collected from a roof. Rain water storage tanks should be protected in a fashion similar to wells and springs and similarly provided with a pump. They should not be permitted to breed mosquitoes. Since it may contain dust and bird droppings, the first water off the roof should preferably be discarded. Simple automatic devises for this care are available.

2.3.2.3 Rural excreta disposal standards

Water carriage of excreta into septic tanks is the preferred method of excreta disposal but is frequently too expensive for rural people. Pit latrines are therefore commonly used and of these the water-seal type is more sanitary than the non-water-seal type. The following criteria are suggested for rural latrines:

(1) the latrine must be satisfactory to the people who are to use it;

(2) surface soil or surface water must not be contaminated;

(3) the excreta should not be accessible to flies or animals;

(4) the latrine should not permit the breeding of flies or mosquitoes;

(5) ultimate disposal of the excreta should be easy and sanitary. A corollary of this is that fresh excreta must not be handled;

(6) the latrine should be cheap and easy to maintain and to operate or to renew;

(7) there should be no significant contamination of ground water.

The provision of public latrines in rural areas is discouraged unless good supervision and maintenance are assured.

The practice of using night-soil as a fertilizer should be discouraged. Until this is stopped, efforts to make its use as nearly safe as possible should be intensified. Live steam treatment, heating to 60°C, is a reliable method of disinfecting night-soil. Storage for some months is very helpful but not completely reliable - ascaris ova, for instance, may not be killed.

It was felt that composting of excreta and refuse was difficult to do without creating conditions conducive to fly breeding or the transmission of hookworm or other parasites.

In regard to both water supply and excreta disposal, it is absolutely essential that health centres and all government housing maintain adequate standards to serve as an example to the community.

2.3.2.4 Methods of achieving objectives

The first requirement is the development of a long-range programme, logically planned and economically feasible. This programme should be co-ordinated with the activities of other agencies, including local government agencies.

The second requirement is the training of the health service staff to carry out the programme. The health staff must understand and believe in what they are being taught and in what they are going to teach, and must set a good example by practising what they teach.

Another essential requirement is the participation of the people. To obtain this, health personnel may:

(a) study present living habits and desires, and initially adjust programmes within this framework;

(b) set up demonstrations, possibly through a demonstration family group in a home sanitation project;

(c) obtain active support from schools through curricula, projects, and school demonstrations;

(d) utilize village groups whenever possible - village health committees or women's groups for instance.

The programme should frequently be assessed as it proceeds. It was thought helpful to have the services of a consultant in public health engineering to guide or to supervise on the national or provincial level.

2.3.2.5 Relationship of health services to local government bodies and village councils in regard to sanitation

It was considered that the government health services should take the lead in the improvement of sanitation in rural areas, and that when local authorities were in a position to take over and continue such sanitation services the health services should hand them over, but should still continue to see that such services were properly maintained.

This continued responsibility of the health services for proper maintenance implies the necessity for the health services to be willing to push in on occasion and assert that sanitation is improper. It also implies that the health services will maintain staff with unquestioned competence in the particular field of sanitation in question.

2.3.2.6 Teamwork

Teamwork was felt to be an essential requirement not only between members of the health services but also between the health services and the community.

Within the health services good teamwork would require all members of the service to have high sanitary standards and to promote sanitation. The doctor, for instance, should inform sick people when insanitation had caused their sickness. The nurse or midwife who visits rural homes should be able to distinguish between good and bad water supplies and latrines, and when the village people have bad ones she should tell them so; she should also tell them what harm this does, and where they may get information on possible improvements.

2.3.2.7 Qualifications and duties of sanitation staff

The qualifications of a sanitary inspector or sanitarian may vary from place to place but the group agreed that he must be equipped with certain skills. He should be able to conduct a sanitary survey of a source of water and to say whether the source will be liable to give good water or bad. He must know whether to site a latrine so that water supplies will not be polluted. He must know something of the theory of disease causation, how to construct wells and latrines, how to dispose satisfactorily of excreta and refuse, the life cycle of flies and mosquitoes, how to control rodents, insects and other vectors of disease. He should also know the elements of health education of the public and food hygiene. He should have skill with the tools he is to work with. He should be active in field work, be acceptable to the community, and be able to establish good personal relations with them.

It was considered that immunizations and first-aid were functions of the sanitary inspector to an extent depending on the availability of other staff for that work. This statement is intended to imply the best utilization of staff in accordance with community needs. It is certainly not disputed that in emergency situations he should take part in immunization work along with other members of the team. Factors to be considered when the sanitation worker is to take part in immunization and first-aid work include:

(a) proper training in immunization and first-aid techniques;

(b) recognition that this is a service concurrent with normal sanitary services to cover a community need;

(c) such a service may well be a means of establishing effective health education of the public.

It was unanimously agreed that sanitary inspectors should, in no circumstances, be used as general clerks.

Many different systems of training are used to obtain various degrees of expertness in the skills listed above. Some of the systems used are listed below with typical duties for each.

(1) Sanitary aide or junior sanitary inspector, or "Agent sanitaire"

Qualifications:

(a) As much education as possible. He should be able to read and write.

(b) Brief course in fundamental sanitation in which the worker is taught to carry out practical work such as:

- construction of individual excreta disposal units;
- improvement and/or construction of simple water supplies such as wells and spring-boxes;
- refuse disposal to eliminate fly and rodent breeding;
- simple background knowledge to explain reasons for his work.

Duties:

The duties are to carry out, under direction, the work he has been taught, listed under (b) above.

(2) Sanitary inspector or health inspector

Qualifications:

(a) High school education (ten to twelve years schooling).

(b) Six to nine months course in environmental sanitation, including:

- fundamentals of communicable disease control;
- basic mathematics;
- principles of mapping and surveying;
- water supplies and excreta disposal, including construction work, simple concrete and reinforced concrete construction;
- refuse disposal (community);
- insect and rodent control;
- food sanitation (general);
- epidemiology (fundamental);

- simple vital statistics;

- meat and slaughter house inspection;

- laboratory sample collections - record keeping.

Note: All phases of instruction should have at least 50% field and practical work. This means not only observation but also active participation.

Duties:

(a) He is responsible for the supervision of sanitary aides, if any, under his unit.

(b) He must be capable of carrying out programme plans and of planning and carrying out local sanitation programmes such as for demonstration areas.

(c) Maintains, with assistance of his aides, regular surveillance of public water supplies in his jurisdiction. This may also include sanitary surveys and collection of samples for analysis.

(d) In the absence of trained veterinary services, he should be capable of carrying out meat and slaughter house inspection.

(e) Regularly inspects public food establishments and markets.

(f) Carries out health education programmes pertaining to his disciplines.

(g) Works closely with other disciplines to co-ordinate his activities with theirs.

(h) Prepares and maintains area maps and records of his jurisdiction within his discipline.

(i) Assists in epidemiological investigations.

(j) Instructs and assists aides in their construction projects.

(3) Environmental health superintendent or sanitarian

Qualifications:

(a) Preferably a university graduate with a major in one or more of the related sciences with one year of specialization in environmental sanitation projects, or -

In some areas, where this is not practicable, must be a high school graduate with a special two-year preparatory course in environmental health which must include considerable practical field work.

(b) Before receiving appointment in the first category, he should serve at least one year in the field as a sort of internship.

(c) Preparatory course curriculum:

- mathematics through algebra, geometry and measuration;
- basic biological sciences and chemistry;
- communicable disease control;
- statistics, including interpretation;
- design and costing estimates for small units;
- laboratory analysis, sampling and testing and interpretation (within his field);
- sanitation of all phases of food preparation and food processing;
- fundamentals of water supplies, including treatment;
- excreta disposal from individual units through septic tanks for small schools or communities;
- community refuse collection and disposal;
- programme planning and budgeting;
- insect and rodent control;
- public relations and health education;
- surveying and mapping;
- basic epidemiology;
- use of special equipment, such as field test kits for adulteration of foods, comparators for chlorine testing, etc.

Duties:

(a) Works under the direction of the medical officer and in co-operation with the sanitary engineer.

(b) In co-operation with the above-mentioned, plans environmental sanitation programmes for the district under his supervision.

(c) Any or all of the duties of Category (2), above.

General note:

A period of apprenticeship in an efficient, functioning health department is a very useful supplement to the qualifications listed for all three typical categories of sanitation staff and is frequently considered essential.

2.4 Report on Topic No. 4 : (a) What are the most effective methods of ensuring community participation in rural health programmes and in what fields is such participation most useful.

(b) What improvements are possible in co-operative action at the local level between health and other agencies, local, national and international.

2.4.1 Introductory remark

The discussion guide presented in respect of Topic No. 4 suggested a consideration of the community groups that might be interested, and the assistance that such groups or individuals might give in the promotion or the provision of services in rural areas. Various agencies with whom co-operative action would be desirable were mentioned, including voluntary agencies and international agencies or organizations. The question of inter-departmental co-operation with departments such as community development, agriculture, education and public works was also mentioned.

The discussion of this topic indicated a very wide measure of agreement with respect to the vital importance of bringing about community participation in the programmes and in the means whereby such participation might be ensured. Unfortunately, no specific discussion took place on the subject of the role of the community development agency in rural health services. The Seminar was handicapped by the absence of an expert in the field of community development and the lack of any organized discussion reflects the serious effect of that absence. An interesting paper by Mr. H.B. Minocher Homji, Community Development Officer, ECAFE/Bangkok, entitled "Role of Community Development in the Development of Rural Health Services" was one of the working papers, but in the very full

programme of work which had to be completed in a two-week period, and the absence of an expert to speak on the paper, it was not debated by the group, although some points from it were considered. There were also frequent references in the discussions to fields of co-operation between the health department and the community development department, and the importance of such co-operation was emphasized.

In many countries of the Western Pacific Region, the health departments are actively training auxiliaries to work in rural areas. These auxiliaries obviate the necessity of multi-purpose village workers performing functions which are the responsibility of the health department.

The detailed report of this topic which follows indicates the broad general trends of the discussion and the conclusions reached.

2.4.2 Analysis of group reports on Topic No. 4, report of plenary discussion of the topic and general conclusions

No important divergence of opinion was evident between the three group reports and no important differences were brought to light in the general discussion of the topic. It was agreed that community participation, to be effective, should involve the sharing by the community of some part of the cost of the health services provided. It was felt however that at the present stage of development in many countries a contribution by the community of time and effort should be regarded as equivalent to a direct financial contribution. There are many ways in which contributions of time and effort may be made but the possibilities to organize direct financial contributions may be very limited or even non-existent in present circumstances. Assistance in the construction of health centre buildings and in their maintenance by providing labour was given as an example of useful contributions in time and effort.

When considering the question of the community groups whose co-operation would be helpful, the general opinion was that an attempt should be made to enlist the co-operation of groups which are not usually approached. Almost invariably there is no question of overlooking well-known groups such as parent-teachers association, village health committees, church groups, tuberculosis associations, Red Cross, etc., but it is useful to remember that valuable assistance may be obtained from other bodies less commonly considered, such as farmers' groups or associations, rural development organizations, trading companies and other commercial organizations and, in certain instances, it is possible to obtain voluntarily, and entirely unofficially, very helpful co-operation outside their normal working hours from members of the armed forces or of the police. In addition, it was pointed out that occasions such as agricultural fairs and fiestas or other public gatherings brought together large numbers of people from the rural areas and provided opportunities for health education. The groups organizing occasions such as these may be very willing, if approached, to give whatever help they can. They can also provide useful assistance in a wide variety of fields. In some instances, they may be able to make a direct financial contribution or help in raising funds, and assist in the fields of health education and in maternal and child health

activities. Sometimes, also, they can carry out simple health procedures after receiving some elementary instruction and provided that a reasonable degree of supervision can be given. Other fields mentioned as ones in which help might be given by various groups included village sanitation, immunization campaigns, nutrition education, day nurseries, family planning, the setting up of milk stations for the distribution of milk, and, first-aid facilities.

The discussion groups considered that the health department should co-ordinate the relationships with the various voluntary bodies who might be involved, and that co-ordination should take place not only at the higher levels but at the local level as well. At the latter level, the medical officer and other health personnel should establish good relationships with various local groups amongst the population. Good results could sometimes be achieved by informal discussions and even a casual conversation might lead to the realization of some health projects such as the provision of a well or of an ambulance. A good leader in a rural health unit had many possibilities to stimulate interest and enthusiasm among the general public.

Another point that was stressed was the importance of women in many countries and how essential it was to obtain the goodwill and co-operation of women's groups with respect to health programmes. It is sometimes helpful for health personnel to become members of women's associations.

Another matter of importance is to remember that if the health department does not take advantage of opportunities for co-operation with organizations interested in promoting health programmes, these organizations are liable to set up their own projects which may not be properly related to the total health programme and which may not be technically sound. Further, it should not be forgotten that voluntary agencies may be the pioneers in social changes and improvement, and this underlines the importance of co-operating with them.

It has already been stressed that it is very important that the population should fully realize that it has a part to play in all the projects which are planned in the area. A useful way of ensuring this is to see that the people, through their local representatives, take part in planning at all levels. Care must also be taken not to overlook minority groups.

In many programmes, inter-departmental co-operation is essential and joint planning and close co-operation in community development projects are of particular importance.

Though official requests for international assistance are made at ministerial level, the role of international organizations should be fully understood at the local level and useful informal contacts can be made at that level. Staff members of agencies such as the United States Agency for International Development (AID), UNICEF and WHO often visit rural areas in the course of their duties and they are in a position to explain the ways in which help can be given.

2.5 Report on Topic No. 5 : To what extent should the rural health services participate in special programmes, such as (a) malaria, (b) tuberculosis, (c) leprosy, and (d) nutrition.

2.5.1 Introductory remark

In the discussion guide presented for Topic No. 5, it was suggested that the national planning and testing of programmes should be considered together with the question of how the local health services could participate in special programmes. Staff training and questions of the need of additional staff were mentioned. It was suggested that attention should be given to the possibility of special programmes interfering with the normal services as well as the supervision which would be required when such programmes were undertaken by, or with the participation of, the local health unit. Inter-departmental co-operation was mentioned and questions regarding the speed at which the special programme could be integrated into the normal health services, the extent of this integration and problems of absorption of staff from special programmes should be reviewed.

There was a great degree of unanimity of thought on this topic and it was considered essential that in all special programmes the local health services should participate to the fullest extent possible from the earliest planning stage.

The detailed report of this topic which follows sets out the thinking of the participants and gives their conclusions.

2.5.2 Analysis of group reports on Topic No. 5, report of plenary discussion of the topic and general conclusions

All the groups agreed that it was essential that the local health services should participate actively in special programmes. The type and degree of such participation will vary in different types of programmes and according to the staffing pattern of the rural health units concerned. The types of participation most likely to fall within the scope of the local health services comprise such activities as:

(1) preliminary propaganda and health education;

(2) drug administration and/or distribution, e.g., in malaria, tuberculosis or leprosy campaigns. In this connexion, it is important to remember that in the case of the drugs used in the treatment of leprosy, reactions may occur and it is advisable that patients should be warned about this. If PAS is being used in the treatment of tuberculosis, it is also necessary to warn against a possible reaction;

(3) the tracing of contacts and defaulters.

Rural health unit staff should be able to undertake these activities with little orientation.

Other activities can be undertaken by rural health unit staff in connexion with special campaigns but these involve training of a duration and intensity which will depend upon the category of the worker. Such activities comprise (1) the taking of skin scrapings as in leprosy, (2) the collection of sputum as in tuberculosis, (3) the performance of tuberculin testing and BCG vaccination. It cannot be too strongly stressed, however, that the training given in such cases must be fully adequate and supervision is essential to ensure that the techniques taught are being effectively performed. In training rural health unit staff for work of this type, it is desirable to train the senior member of the unit first, and it is also important not to overlook the training of newcomers to the unit.

So far as the overall planning for special programmes is concerned, all groups agreed that while this would be carried out at the national level there must be consultation with the local health services. Early in the planning stage, it was considered that a manual should be prepared, setting out clearly the way the campaign would be implemented and the role to be played by those who would participate in it. This manual should be widely circulated beforehand at the local level so that staff may become aware of their proposed functions.

The value of establishing pilot projects prior to the implementation of special campaigns was mentioned, and it was considered that pilot projects were specially valuable from the point of view of the local health services for the following purposes:

(1) to ascertain whether the local health services are capable of performing the role assigned to them;

(2) to ascertain whether the number of staff will be sufficient for the purposes in view without interference with normal services;

(3) to test the manual and, if necessary, to revise it;

(4) for the training of staff.

This presupposes that in any pilot project the rural health staff will have an important part to play.

The groups considered it important that, from the very start, the planning should envisage the ultimate integration of special programmes into the local health services and the absorption, so far as possible, of the special project staff. It was noted that the speed at which integration could take place would vary very considerably according to the specific field. For instance, in yaws eradication campaigns, integration is possible immediately after the campaign is completed and the campaign itself may well be of comparatively short duration. In the case of a malaria campaign, however, the process is likely to be much slower. It should be borne in mind that in the case of tuberculosis and leprosy campaigns, complete integration will not be feasible since special services will always be necessary to establish diagnosis and for clinical and laboratory procedures.

The technical supervision of these special projects which would be provided by the appropriate specialist staff was regarded as very important. It was also considered that, generally speaking, the medical officer at the local level should have an active part in the administration of the programme in his area. The staff of the local health services should prepare the people for the visit of the special team and introduce them on their arrival in the area in question.

Some consideration was given to the question of the evaluation of special programmes and it was pointed out that sometimes it would be necessary to request the assistance of international agencies; examples were mentioned such as the WHO bilharziasis advisory team, treponematoses advisory teams, etc. It was felt however that the local health services had an important role to play in the day-to-day assessment of the special campaigns being carried out in their areas, and that they might be in a position to give early information to the specialized service of any possible difficulties which the campaign may experience or run into in the particular area. If the co-operation between the special team and the local health service is as close as it ought to be, this should not be difficult to achieve.

It was stressed that co-ordination with voluntary agencies was valuable, particularly in tuberculosis and leprosy work, and it was noted that voluntary agencies which could be helpful should be involved in planning and be regularly consulted subsequently. In this connexion, the following were particularly mentioned:

(1) societies for the prevention of tuberculosis and leprosy;

(2) Red Cross;

(3) missionary and religious groups;

(4) private practitioners.

During the course of the discussions, the participants expressed general agreement with the group reports. Considerable attention however was devoted to questions relating to leprosy control. It was pointed out that in a number of countries there were still difficult problems because of the fear of the disease which led people to be very reluctant to seek treatment and even to hide to escape detection. This attitude was changing rapidly in some countries but more slowly in others, and it was felt that the staff of the rural health services, who live in close association with the rural population, could do much by propaganda and health education to stress the successful treatment which is now available to sufferers from leprosy and thus attempt to change their outlook. It was also mentioned that, in some instances, the outlook of health department staff towards this disease needed to be changed.

The value of mobile units in leprosy work was discussed. These sometimes take the form of skin clinics which provide facilities for the diagnosis of the disease. The clinics visit rural areas regularly and the health unit staff arrange for suspected cases to attend for diagnosis when such visits are made. The role of these clinics is consultative and they are able to make a

diagnosis in respect of the doubtful cases referred to them by the rural health unit staff. They also can give guidance to rural health unit staff in the management of leprosy patients under treatment. The rural health unit staff should be able to undertake the routine diagnosis of frank cases of leprosy and to take specimens from suspected cases for examination by the skin clinic. Mention was also made of other forms of mobile units which could visit areas to detect not only leprosy but the other prevalent communicable diseases. Such units play an extremely important role in case finding, in bringing information to the particular specialist concerned, and in the giving of treatment where indicated.

2.6 Report on Topic No. 6 : To what extent are the training needs of rural health workers being met and how should this training be developed.

2.6.1 Introductory remark

The extreme importance of the training of rural health workers was recognized by all the participants and a great deal of thoughtful work was carried out both in the discussion groups and in the plenary session. The discussion guide suggested that the best methods of preparing staff for service in rural areas should be considered and also the use of rural health units for field training purposes. The adequacy of training centres and training centre staff was mentioned and also questions of accommodation for trainees and transport in connexion with the field work. Types of training to foster team spirit and to promote mutual understanding of the routines of various staff members and training for supervisory staff and staff at higher echelons were reviewed. Questions of orientation training, in-service training and higher training were also considered.

The detailed report of this topic which follows indicates the broad general trends of the discussions which gave rise to some useful conclusions.

2.6.2 Analysis of group reports on Topic No. 6, report of plenary discussion of the topic and general conclusions

The groups emphasized some general points to be borne in mind in considering how best to prepare staff for service in rural areas. It was recognized that both professional and auxiliary workers had to be trained and that the training they received was intended to enable them adequately to fulfil their duties and functions. The primary necessity is thus to take careful note of the content of the rural health services operational programme, the staffing patterns and the duties the staff are expected to perform. The training programme can then be prepared on the basis of the information obtained from consideration of the points just mentioned.

There was complete agreement that public health theory and practice should form part of the basic professional training of doctors, nurses and

midwives, the emphasis and content of the public health teaching being appropriate to the needs of the respective disciplines. It was pointed out that graduates from nursing and midwifery schools that do not offer this type of preparation needed further training for their work in public health. Some countries in the Region are offering special courses and field practices for nurses to qualify for staff positions in public health. Midwives are also sometimes offered supervised practice in health centres to prepare them for employment by a health agency.

There was considerable discussion as to whether it was essential for medical officers in charge of rural health units to have a post-graduate qualification in public health and there were some differences of opinion on this respect. In general, however, it was agreed that in some countries the type of work being performed by the medical officer in charge of a rural health unit was such as to render the position of a higher qualification in public health desirable. It was further agreed that those doctors who showed interest and aptitude in the public health and administrative fields and who appeared likely to be promoted should be given opportunities to obtain a higher qualification in public health. Doctors who were not being selected for a higher course in public health should be given suitable in-service training to fit them for their duties and responsibilities.

It was also considered desirable that health inspectors should have a basic professional training, including training in public health theory and practice, in advance of their entering upon their duties. However, it was recognized that the health inspector, more often than the other disciplines, entered upon his duties without having received technical training. What is required for the health inspectors, therefore, are facilities to train them to the standard of a recognized sanitation diploma or certificate. The general opinion was that it would be desirable for health inspectors to be placed on probation on appointment and for confirmation in their appointment to be conditional upon their passing a required examination. It did not seem possible to lay down definite standards but it was regarded as essential that health inspectors should have a thorough training to equip them for the duties they would have to perform, and it was regarded particularly important that the practical aspects of the training should be stressed. The duration of the training would probably have to vary according to circumstances in different countries but generally speaking a period of about nine months full-time formal training with a varying period of apprenticeship would be desirable if this could conveniently be arranged.

Regarding training of the different categories of auxiliary staff, it was pointed out that their educational background was likely to vary considerably and that the curriculum which they should follow would be largely determined by their educational background. It was stressed, however, that in training the practical side was of much greater importance than the theoretical. In exceptional cases there could be opportunities for advancement to higher grades for those auxiliary workers who had demonstrated their ability and succeeded in passing the requisite examination.

The question of the training of traditional midwives was discussed and it was agreed that in certain countries where there were insufficient qualified midwives some form of instruction should be arranged for traditional midwives. The object should be to teach them cleanliness and safe methods of delivery and to explain to them why certain traditional practices were harmful and discontinued. They should also be taught to refer their cases to the local health service for examination. A very important matter is the reporting of births and they should be urged to do this. It was stressed that this training should consist mainly of practical demonstrations.

The question of orientation to a specific assignment was considered and all groups agreed that, irrespective of the basic training of the staff member concerned, some form of orientation was necessary when taking up a new post. It was considered that this orientation should be given by the supervisor concerned with the duties and responsibilities of the new staff member, and it was noted that this provided an opportunity for him to be introduced to and welcomed by his co-workers. In most cases, such orientation would only be of short duration but if it was thought desirable in any particular case a longer period could be allowed and opportunities could be given for some training in particular aspects of the new assignment as required.

There was complete agreement on the necessity of providing opportunities for in-service training for all staff members, and it was stressed that the training of a staff member did not end at the time he was accepted for employment. In-service training can take many forms but it was not possible to go into these in great detail. One form of in-service training which was generally favoured was that in which members of different disciplines could receive training together, thus providing opportunities of teaching the team approach and of enabling members of different disciplines to understand more about the role of their colleagues. It is only in certain parts of the course that all disciplines work together; at other times the various participants are working separately in their respective subjects. Such training courses are not restricted to rural health unit members but can include supervisory staff and staff members such as dental officers and administrative officers. Other forms of in-service training which are valuable would include seminars or workshops on special subjects, e.g., MCH or sanitation problems. Meetings of this nature in fact provided very good opportunities for multi-disciplinary training. It was also mentioned that staff meetings of rural health units were very important and that all members of the unit, including clerical staff (if any) should attend them and that they should be devoted partly to training - in other words, staff education should form one of the objectives of rural health centre staff meetings.

The training of staff usually takes place both at training centres and, in respect of field training, at selected rural health units. The selection of rural health units for training purposes should be based on the quality of the staff in that unit and should take into account the conditions prevailing in the area which should approximate those which the trainees are likely to find in the areas to which they are to be assigned. The problems of distance from the training centre, and questions of transport and accommodation of trainees also have to be taken into consideration.

It was considered that the training centres should have a permanent staff and it was suggested that, generally, they would need:

- training director,
- public health nurse educator,
- midwife instructor,
- sanitarian instructor,
- administrative staff,
- workshop staff, such as carpenters, masons, plumbers with complete equipment and materials.

The question of evaluation of training was considered and it was thought desirable that training centre staff should follow up staff members in their field assignments with the intention of assessing the effectiveness of their training and also in order to bring to light any inadequacies. It was pointed out that evaluation is a joint responsibility of the training staff and the supervisor of the staff members in question. For this reason, it is most important that training centre staff arrange their field visits through and in conjunction with their supervisors.

2.7 Report on Topic No. 7 : How can the present inadequate evaluation of rural health services be improved.

2.7.1 Introductory remark

The discussion guide for Topic No. 7 posed the question of the criteria to be used in evaluation, what records were essential and to what extent reliable records could be obtained. The improvement of recording procedures and of statistical data was also to be considered. The use of annual and other reports in the evaluation process was mentioned and it was suggested that the process of assessment of results obtained should consider quality, quantity and effectiveness. The detailed report which follows indicates the lines of the discussions and the conclusions reached.

2.7.2 Analysis of group reports on Topic No. 7, report of plenary discussion of the topic and general conclusions

Evaluation was defined as an assessment of accomplishments towards established objectives. This was considered to include an appraisal of the efficiency of the work performed in terms of money, effort and time expended. It was recognized that evaluation should not be an end in itself but should be employed to measure progress in terms of work accomplished, to determine the effectiveness of the methodology being used, and to serve as a basis for modifying or formulating new programmes as might be necessary after comparing the results with the objectives.

It was recognized that at the present time evaluation was usually inadequately performed and among the reasons given were the following:

(1) lack of personnel trained in evaluation methods;

(2) lack of reliable statistics and of trained statisticians;

(3) lack of essential records;

(4) lack of interest in carrying out evaluation.

Evaluation of the local health services should normally be a function of the local health staff as each member has a leading role in carrying it out. Just as the overall programme is broken into parts undertaken by or under the responsibility of each member of the team, so must the evaluation of these individual components be the responsibility of each of them. The medical officer in charge of the team should then correlate the findings and interpret them in relation to their meeting the declared objectives of the local health programme.

At times, special methods and recording are required to evaluate special aspects of the health programme and when this situation prevails, the assistance of technical personnel at higher levels would be necessary. An example of this would be in determining the success of vaccination in the control of a communicable disease, e.g., BCG vaccination.

The evaluation process normally requires availability and reliability of statistical materials from which inferences, if not conclusions, can be drawn. It was recognized that in the rural areas of many countries in this Region, suitable records to meet requirements for an accurate evaluation were not usually available.

Because of the wide use of auxiliaries and the employment of sub-professional personnel in health services in rural areas, it was thought desirable to devise simple record forms which would be easy to understand and complete.

It was also suggested that concerted efforts be made by the health team, preferably in collaboration with other local agencies such as education, voluntary organizations, local administrations, etc. to ensure better reporting of births and deaths as well as illnesses. To gauge the extent of birth registration, a check could be made on how many school children attending the health centres had been registered at birth. In this connexion, traditional midwives should be taught the importance of birth registration at the time they receive orientation training at the local health service. Generally speaking, more deaths are registered than births; it is nevertheless necessary for the local health service to determine under what circumstances death registration is not done so that corrective measures can be taken to ensure complete reporting. Where sub-professional or auxiliary health personnel constitute the local health staff, it may be desirable to establish the grosser forms of classifying causes of deaths, e.g., "fever of undetermined origin". Under these circumstances, however, the medical officer at a higher

level should undertake a special assessment locally to determine what generally these diseases are and to recommend appropriate measures for their prevention and control.

In the MCH field, efforts should be made to determine the causes and extent of maternal deaths as normally these would be the easiest to determine. In small communities, all maternal deaths and complications should be easy to trace. A simple but helpful guideline might be designed which would help indicate causes, e.g., whether toxic, infectious or haemorrhagic in nature. A guideline in connexion with determining general causes of infant death might be developed, especially when these are respiratory or gastro-intestinal in nature. It might however be necessary to have a higher technical appraisal of other causes of deaths such as many febrile conditions (outside of respiratory and gastro-intestinal nature), nutritional state, etc.

In the field of sanitation, the sanitary worker's report should not only consider the number of toilets constructed and condemned but also the number in use. The availability, kind and suitability of water supplies in use should be considered as well as the improvements made on them.

The clinic or dispensary records are sources of evaluation material, e.g., an increasing number of attendances would, of course, indicate the use being made of them. The types of services rendered might also point to certain local health problems of which the local health service might not immediately be aware, e.g., treatment of dog bites, certain types of injuries, detection of malaria cases, etc.

If a marked change in the attitudes of a population is noted, this might well give an indication of the success of the health services being rendered, i.e., these services might now be greatly appreciated and very popular, whereas in the past they had been regarded with apathy if not with actual hostility.

If the calls made on the domiciliary midwifery service are mostly in connexion with emergency cases this may indicate the need for appropriate health education measures to explain how this type of service ought to be made use of by the community.

Observations made during the course of home visiting may give indications of the success of local health programmes by showing the increase in the number of cradles used, of mosquito nets provided, the practice of boiling drinking water before its use for drinking, the presence of separate towels and toothbrush for each member of the family, etc.

The conduct of technical supervision from a higher level includes the important function of evaluating performance of individual staff members and the type of service rendered. The reports of routine inspection visits of technical personnel should therefore provide valuable material for evaluation.

Individual staff members should also assess their own performance and work programme. For instance, if a nurse spends a substantial amount of her daily work in filling records or doing dispensary work, she probably needs to re-plan her schedule. The medical officer in charge should be able to assess whether the staff are carrying out their work independently of each other or in a co-ordinated manner, e.g., nursing visits and environmental health measures in the community should be co-ordinated for control of certain diseases, e.g., gastro-intestinal diseases. The work programmes of the staff in such circumstances should conform to epidemiological requirements as defined by the medical officer. The extent of concerted action taking place during the year in the context of the overall health programme can be revealed only by the evaluation process.

Routine reports are summaries of health events and the action taken on them by the health team. These reports should be organized properly, with assistance from higher levels, if necessary, so that their contents can be easily understood and provide the basis for comparison from year to year in the same local health service and with respect to the activities of other local health services. Only in this way can the health authority at a higher level be in a position to gauge correctly the problems and needs of the local health services and in that way assist them in obtaining the resources to help them meet their needs.

3. SUMMARY

On the basis of the objectives enumerated on page 2 of this report, the Seminar Group considered the following topics and formulated the following conclusions:

1. Topic No. 1 : To what extent are the total health needs of the rural population now being met and in what direction should future developments take place.

In any programme aimed at social and economic development the promotion of the people's health is a sine qua non. Consequently, long-range national programmes should include the establishment of health services for the protection of local communities, including the rural areas.

The rural health unit, when established, should continually be aware of and accurately assess the health needs of the local population.

The felt needs of the community may be manifested in many ways, such as the expressions of civic and religious groups, as well as of village chiefs and other local leaders, the reports of government agencies and from the press, etc. Very often these groups are of help in organizing resources to meet local needs.

The felt needs may differ from the needs recognized by the health worker and the latter may have to introduce local health education measures to obtain the understanding and support of the local population to implement them.

Health services considered essential to the community are: maternal and child health, communicable disease control, environmental health, maintenance of records for health statistical purposes, health education of the public, public health nursing and medical care. The scope of these services varies depending on the resources of the local community and/or the organization of its local health services.

Important features in the rural health unit organization include the integration of preventive and curative services, the active role of each team member in health education work, and the provision of a mobile health unit to serve sparsely populated spread-out areas and to carry out special health programmes.

The development of the rural health services may be hindered by such factors as the unwillingness of available staff to work in rural areas, transportation and communication difficulties, diversity of customs and dialects, lack of local co-operation and disturbed local conditions.

In general, it is desirable that the rural health staff should include a doctor who serves as team leader and a varying number of public health nurses, midwives and health inspectors. In countries with limited resources auxiliaries have often been utilized, e.g., multi-purpose village health workers.

The acceptance of a rural assignment may be promoted by such inducements as suitable housing, educational opportunities for staff and family, salary allowances, longer vacations, crediting rural health service for military duty, etc.

Although receiving guidance from a higher level, local health programmes should be developed by the rural health unit with local community participation.

2. Topic No. 2 : What are the principal problems in providing family health services in rural areas and how may these be solved.

The family is a convenient unit for extending basic health services to the community, as the latter is made up of families, and because the individual's health has an important bearing on that of his family.

The public health nurse has played a key role in the provision of family health care and the Group felt that her approach to the family as a unit could, with benefit, be utilized by the other categories of health workers.

The failure of local health units to make use of the family approach is partly due to lack of appreciation of the administrative convenience to be derived in approaching the family as a unit. This is often manifested in the lack of family health record cards where findings on individual family members may be entered and from which information can be made available to other members of the health team.

The development and expansion of family health care by the rural health unit requires a re-orientation of its staff and should be followed up through mutual consultations and referrals as may be required.

3. Topic No. 3 : What should be the role of the health services in the improvement of sanitation in rural areas, and what steps are necessary to achieve this improvement.

In the field of environmental health, the objectives of the rural health unit should be the control of communicable diseases related to the environment and the promotion of healthful living through environmental control.

In rural sanitation programmes priorities are usually given to the provision of potable water and the sanitary disposal of human excreta. Other important activities, not necessarily in the order of priority, are: refuse disposal, food sanitation, control of flies, mosquitoes, rats and other vectors, and general cleanliness.

Recommended standards for rural water supplies and the suggested criteria for rural latrines, as adopted by the Seminar, are enumerated on pages 13 and 14 of this report. The use of night-soil as a fertilizer should be discouraged. Where night-soil continues to be used for this purpose, it should be made as safe as possible; among the methods used are live steam treatment and storage for some months to destroy the ova of intestinal parasites.

The qualifications of sanitarians were reviewed and though they varied from place to place, it was felt that they should possess certain skills which would permit them, for example, to conduct a sanitary survey of sources of water supply, and to site a latrine to avoid polluting water supplies; they should also have a knowledge of the theory of disease causation, of well and latrine construction, vector control, especially flies and mosquitoes, food hygiene, elements of public health education, and skill in the use of the tools required.

The Group felt that immunization and first-aid should be the functions of the sanitation worker only when other staff were not available for this work. The sanitation worker should, in no instance, be used as a general clerk.

Suggested guidelines for the qualifications, duties and training content for the different levels of sanitation workers appear on pages 16-20 of this report.

4. Topic No. 4 : What are the most effective methods of ensuring community participation in rural health programmes and in what fields is such participation most useful.

What improvements are possible in co-operative action at the local level between health and other agencies, local, national and international.

Community participation should mean sharing by the community of the costs involved in developing a programme, In developing communities, sharing may mean contributions in terms of labour and/or material rather than in cash, e.g., labour and materials for the construction of a health centre.

There are many active groups in the community and their assistance is always valuable. There are also other groups not often called upon, such as farmers' association and civic groups, whose contributions are valuable, especially in connexion with health matters that directly affect them. The support given to health activities by local women's groups has been of considerable value in the health programmes of many countries in the Region.

The rural health unit should consult with local voluntary groups or agencies and co-ordinate their activities with them.

Community support depends upon its interest; this can be stimulated through the involvement of representatives of community groups in the planning and undertaking of local health programmes.

5. Topic No. 5 : To what extent should the rural health services participate in special programmes ....

The rural health unit should participate in any special health programmes being undertaken within its area. The type and degree of this participation would vary with the type of health programme and the health staff available.

In general, the local health staff, if given a short orientation course, can assist in such activities as the initial health education campaign and in the issuance of drugs such as in a leprosy campaign. With more training, the appropriate rural health staff can assist in such methods as obtaining skin scrapings for leprosy, collecting sputum specimens from tuberculosis cases, collecting blood smears for malaria parasites and participating in immunization campaigns. It is essential that the senior member of the rural health team should be involved when rural health staff are trained for special health programmes.

The planning of special health programmes is a specific responsibility of the authorities at a higher level, but prior consultations with the local health units would help the planners obtain a better orientation on local conditions. Programme implementation would be facilitated by the use of a field operating manual which should contain the principles and methods to be employed and the duties of the staff participating in the programme. The workability of a programme plan could be tested and its methodology improved through the establishment of a pilot area.

In planning special health programmes consideration should be given, from the beginning, to their eventual integration with the general health services, including the rural health units. Special health programmes, e.g., yaws campaigns, may be completely absorbed by the rural health unit; in others, e.g., leprosy or tuberculosis control, a specialist unit would be needed for consultative purposes and technical supervision, even when the local health units have assumed most of the routine procedures of the programme.

The evaluation of special health programmes integrated into the overall rural health programme may need the assistance of the specialist units or those of international agencies, but the rural health units should have a specific responsibility for the continuous evaluation of these programmes with the technical support of the specialist teams.

The rural health unit should also co-ordinate its activities with the operating activities undertaken by voluntary agencies, e.g., anti-tuberculosis work of the local tuberculosis association.

6. Topic No. 6 : To what extent are the training needs of rural health workers being met and how should this training be developed.

Professional and auxiliary workers need training to enable them adequately to fulfil their duties and functions.

Training should cover both public health theory and practice, the emphasis and content being adjusted to the needs of the responsible disciplines.

Medical officers in charge of rural health units who perform special duties, or who are due for promotion to a higher post, should hold a post-graduate qualification in public health. All others should receive suitable in-service training to prepare them for their duties.

Sanitary workers, more than the other disciplines, often enter upon their duties without receiving sufficient technical training. It is desirable to provide facilities to train them up to a standard of a recognized sanitary diploma or certificate. It is suggested that they should also be given a probationary appointment, confirmation of which should be subject to passing a required examination.

The educational background of many categories of auxiliary workers should be considered when training courses are prepared for them.

In countries where qualified midwives are not sufficient it may be useful to give special training to the traditional midwives. In some countries their training consists mostly of practical demonstrations and the content includes general hygiene, the improvement of traditional practices or the introduction of new ones, and the importance of their making referrals to the health centres.

It is suggested that all health staff should receive a period of orientation before assuming new posts, preferably from the supervisor concerned.

There should be ample provision for the in-service training of staff. When different disciplines train together, a better understanding of the respective responsibility of each is promoted and this leads to effective team work. Various types of staff meetings contribute to training and help the staff to understand and work out co-operatively solutions to mutual problems.

The selection of a rural health unit as a training centre should be based on the quality of its staff and the adaptability of its programme and methods to the other rural health units. Provision should be made for the follow-up of trainees by the training staff for evaluation purposes; this evaluation should, however, be shared jointly with the field supervisor of the trainees.

7. Topic No. 7 : How can the present evaluation of rural health services be improved.

Evaluation may be defined as an assessment of accomplishments based on established goals. It is not an end in itself but is employed to measure the work accomplished and to determine the effectiveness of the methodology used. The findings thereby will serve as a basis for modifying or formulating the health programme as may be necessary.

At present, evaluation is inadequate in many areas due in part to the inadequacy of trained staff familiar with evaluation methods, the lack of reliable statistics and essential records, and insufficient interest on the part of health staff.

Evaluation of the rural health unit is normally a function of its staff under the overall guidance of the medical officer in charge. The latter should also assess the degree of co-operation existing among his staff in pursuing the local health programme. Sometimes specific methods and recording require assistance from specialized staff at a higher level and the latter may also be necessary to perform a special type of evaluation.

The need for reliable records and the utilization of auxiliary staff in many areas require that the record forms should be simple in design so that they are easily understood. Increased efforts are needed to improve birth registration and the recording of all deaths and reportable diseases. It is the responsibility of the medical officer concerned to make a special assessment of the simplified reports on births, cases and deaths, in terms of their public health importance and to take any appropriate action required.

Routine reports are summaries of health events and the action taken on them by the health team within a specified period. When properly organized and prepared, these reports provide the basis of comparison from year to year and are useful for local programme development and evaluation. It is also through these reports that the national health authorities derive the information from which national health policies and programmes are developed.

ANNEX I

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ANNEX II

CONSOLIDATED COUNTRY REPORTS ON RURAL HEALTH SERVICES IN THE WESTERN PACIFIC REGION

1. GENERAL INFORMATION

Country questionnaires were sent to fifteen countries and territories invited to participate in the Seminar on Rural Health Services; twelve of them replied in time for consolidation in this paper.

Eight of these countries are independent states and four are non-self governing. The countries represent a wide range of social and economic development, exemplified on the one hand by industrialized Japan and on the other by newly emerging Territory of Papua and New Guinea. Except possibly Japan and Singapore, all these countries are at different stages of economic development.

All countries, except Korea, Western Samoa, and possibly Japan, are inhabited by varied ethnic groups. Distinct ethnic and cultural groups are of contemporary importance in some, e.g., Malaya, Singapore and Fiji. In the Philippines the population is made up of kindred ethnic groups, except for the Negritos, although the so-called "minority groups" may differ in religion or in social-economic development. The indigenous population of the Territory of Papua and New Guinea is made up of many tribes, Melanesians, while in North Borneo and Sarawak they are predominantly of Malayan-Indonesian stock. In the latter two countries social and economic progress has been influenced largely by the Chinese, Indian and European population. In Laos, the Lao-Thais are more numerous than the Meos and Khas who have different ethnic origins. In Vietnam, the Montagnards are a minority in the mainly Vietnamese population.

The varying religious beliefs in these countries are influenced by racial origin and historical development. Certain tribes in the emerging countries are still pagan (e.g., Territory of Papua and New Guinea and in Borneo), while in others the great Asian ethnical and religious creeds are predominant, e.g., Buddhism, Mohammedanism, Hinduism, Shintoism, Confucianism and Taoism. In these countries, Christianity is professed by the European segment and by a varying percentage of the indigenous population, e.g., the Philippines, Western Samoa, and to a certain extent, Vietnam.

In terms of population, Japan has the highest (over 93 million) and Western Samoa, the lowest (14 000). Except for Japan (37.5%) and Singapore (37.4%), these countries have a predominantly rural population, ranging from 56% in Korea, to 80-84% in North Borneo, Fiji, Laos, Malaya, the Philippines, Sarawak and Western Samoa, and 90% in the Territory of Papua and New Guinea and Vietnam. A percentage break-down of the populations of these countries shows that 50% are 0-19 years, 43.7% at 20-59 years, and 5.5% at 60 years and over. These countries had the following populations in 1960: Western Samoa, 114 427; Fiji, 401 018; North Borneo, 490 000; Sarawak, 744 529; Singapore, 1 634 100; Territory of Papua and New Guinea, 2 000 000; Laos 2 600 000; Malaya, 6 909 009; Vietnam, 14 068 025; Korea, 24 994 117; Philippines, 27 783 349; and Japan, 93 347 200.

With a few exceptions the vital and health statistical information submitted was not considered accurate by the reporters, the reasons given being the following: lack of or incomplete birth and death reports and the certification of a large percentage of deaths by non-medically qualified health personnel. With these reservations the following figures have been received: (a) crude birth rates ranged between 17.2 (Japan) to 40.9/1000 (Malaya), and an average of 32.9/1000; (b) crude death rate was lowest in Singapore, 6.2 and averaged 7.6/1000; (c) infant mortality rate was lowest in Japan, 30.7 and averaged 51.2/1000 live births; (d) only four countries reported maternal mortality rates, viz., Singapore, 0.4, Japan 1.16 and Malaya and the Philippines, 2.4/1000 live births.

Except for two countries (Japan and Malaya) the five leading causes of general and infant deaths were due to infectious (respiratory, gastro-intestinal) and specific infections, e.g., tuberculosis and dysentery). In some countries, other factors were beri-beri (e.g., Philippines, although the accuracy of this diagnosis has been raised) and prematurity. In two countries (Japan and Singapore) degenerative diseases and malignancy rank among the five leading causes of general deaths while diseases peculiar to early infancy and prematurity, congenital malformation and those conditions connected with birth injuries, post-natal asphyxia and atelectasis were among the leading causes of infant deaths. Even in these two countries (particularly in Singapore), respiratory and gastro-intestinal infections contributed significantly to infant mortality.

Tabulated summaries on the number and age distribution of the population, percentage estimates at the rural population, vital and health statistical data, and leading causes of general and infant deaths in the participating countries during 1960 may be seen in Appendices 1-3 of this report.

2. ORGANIZATION OF THE NATIONAL GOVERNMENT AND HEALTH ADMINISTRATION

2.1 Non-self governing countries

There are similarities in the government organization of the non-self governing countries. At the top of the central government is the Governor (or the Administrator as he is called in the Territory of Papua and New Guinea) who is assisted by an Executive Council. There is a law-making body which is usually partly elected but which may be a purely appointed body. For administrative purposes each country is divided into districts (or divisions or residencies) under a district commissioner (or resident or district officer). At the lowest level is the town and village. Local governments vary according to the extent of autonomy granted them and their control of local funds. Autonomous cities or towns are run by elective councils whose responsibilities in health lie at least in sanitation and maternal and child health. Local authorities receive advisory services in health from the central government. The central government

also exercises technical supervision over local health personnel. In non-autonomous localities health and medical services are provided entirely by the central government.

In Fiji, the Indian Advisory Committees are organized in Indian settlements outside local council areas which advise the government on the needs of the local population. There is also established a Fijian Administration which has jurisdiction over all Fijians in the country. At the head of this administration is the Council of Chiefs which has an executive body called the Fijian Affairs Board. The Colony is divided into fourteen provinces (Yasana), each of which are divided into districts (or Tikina) and the latter into villages.

At the central level, the Medical Department is headed by the Director of Medical Services who is assisted by a staff which includes the Deputy Director, Nursing Superintendent, Chief Health Inspector, Tuberculosis Control Officer, Health Education Officer, Supervising Dietitian, Chief Pharmacist, Senior Dental Officer and administrative and accounting personnel.

At the division level, the Medical Officer is assisted by four services, viz., clinical services responsible for district and rural hospitals and the dispensaries; the health sister's which looks after district nurses; the health inspector's which supervises assistant health inspectors; and the dental services. Nursing activities in maternal and child health of the division covers Fijian and non-Fijian villages. The division health inspector has also technical supervision over sanitary personnel of Fijian and non-Fijian villages. The locally trained medical officers of the division may render clinical services in non-Fijian areas but are responsible for clinical and public health services in the Fijian villages.

2.2 Independent countries

There are distinct differences in organization in these countries. The structure for each country is described below:

2.2.1 Japan

Japan operates under the parliamentary system. The legislative body is called the Diet. The Cabinet is chosen from among the members of the Diet and is headed by the Premier.

The country is administratively divided into forty-six prefectures (made up of one To or metropolitan area, one Do, two Fu and forty-two Ken). The prefecture is autonomous; it has a local assembly and a governor or, in the case of Shi (city), Machi (town) and Mura (village), a mayor. The prefecture is made up of cities (one of which is the prefectural seat) and rural districts made up of towns and villages.

The national health administration is constituted by the Ministry of Health and Welfare which co-ordinates related activities such as preventive medicine, medical care, social welfare and social insurance. Under the Ministry are bureaus which share responsibilities for determining national health policy and planning national programmes, viz., the Public Health Bureau, Environmental Sanitation Bureau, Medical Affairs Bureau, Pharmaceutical and Supply Bureau, Maternal and Child Health Section of the Children's Bureau, Rehabilitation Section of the Social Affairs Bureau, and the Health and Welfare Statistics Division which is immediately in the office of the Ministry. In 1962, the Social Insurance Agency was established which has responsibility for medical care insurance and pension insurance; it is expected to share in planning and administering the Ministry's overall social plan which has health implications. The health and medical bureaus of the Ministry exercise direct supervision over the health programmes "by giving orders to the forty-six local prefectural governments".

Each prefectural government has a health agency responsible for carrying out health programmes in line with national policies and programmes originating from the Ministry of Health and Welfare. Prefectures are divided into "health centre districts" each of which has a health centre; the latter usually have smaller health units within the health centre district.

2.2.2 Korea

The country is at present under a Provisional Government headed by a Supreme Council whose chairman is the virtual Chief of State. This is a transitory organization as steps are underway to restore an elective civilian government in 1963. The country is administratively divided into nine provinces each headed by a governor. Seoul is classified as a special city and has a mayor for head. The provinces (including Seoul) are autonomous and have an administration set-up similar to the national government. Provinces are divided into guns (or counties) which consist of myuns (or townships).

Health functions are vested in a Ministry of Health and Social Affairs, which includes labour and welfare affairs among its duties. Health duties in the Ministry are assigned to three bureaus, viz., medical affairs, public health, and pharmaceutical affairs. The Bureau of Medical Affairs is responsible for the hospitals, nursing and the public doctor's clinics. The Bureau of Public Health is generally assigned disease control and sanitation activities. At the provincial level there is a Director of Health and Social Affairs who is administratively responsible to the Governor and only technically responsible to the Ministry. It has jurisdiction over all provincial hospitals and institutions, including the health centres in the guns and the public doctor's clinics in the myuns. The Provincial Director of Health and Social Affairs is not usually a doctor but is assisted by medical officers heading the sections of medical affairs and public health.

2.2.3 Laos

The Kingdom of Laos has a parliamentary system of government. The country is divided into sixteen khouengs (or provinces) which are sub-divided into 103 muongs (or districts) which in turn are sub-divided into 803 tassengs (or cantons). The tassengs are made up of 11 657 villages (or bans)

Health functions are vested in the Ministry of Health. The Director-General of Health Services is the highest technical head of the health services. Six provinces have provincial medical officers who serve concurrently as chief of the provincial hospital in their respective provinces. The other provinces have no hospitals but there may be a combination of infirmary and dispensary. In the muongs, dispensaries may operate under Laotian male nurses. In the tassengs, rural midwives may be assigned.

2.2.4 Malaya

This country is a federation of autonomous states under an elective king who serves for five years. Each state is headed by a sultan, except for two former settlements (Penang and Malacca) each of which has a governor appointed by the King for a fixed term. The federal government has a bicameral legislative body which is partly elective in the Senate and wholly elective in the House of Representatives. The Cabinet consists of Ministers selected from the Parliament and is headed by the Premier. The Federal Parliament enacts laws of national scope and leaves to the States statutes dealing with local governments.

The States have a parallel set up of executive, legislative and administrative body responsible for the running of their internal affairs. States are administratively divided into districts, each headed by a District Officer from the Malayan Civil Service.

Local governments vary in administrative and financial autonomy, such as the Municipal Council which is fully autonomous (except for technical advisory services and loan funds granted to it by the Federal Government), rural district councils, town boards, town councils and local councils.

Health functions are vested in the Ministry of Health under which is the Director of Medical Services who is the technical head of the country's health and medical services. The Director of Medical Services is assisted by a technical staff of different disciplines, among whom are the Deputy Director of Medical Services (Health), Deputy Director of Medical Services (Hospitals), Assistant Director of Medical Services (Dental), Principal Matron. At the state level is the Chief Medical and Health Officer who is responsible to the Director of Medical Services for all health activities in his area; he is assisted by a Deputy Chief Medical and Health Officer who is usually the medical superintendent for the general hospital. At the district level is the Medical Officer of Health and his technical staff. The Medical Officer of Health has supervision over all

public health organizations in the district, including rural health units. A district hospital may be established in a district but its medical officer in charge is administratively independent of but liaises with the Medical Officer of Health. District hospitals are under the direct supervision of the Chief Medical and Health Officer through his deputy.

2.2.5 Philippines

The country has a Presidential system of government. Its President is popularly elected for a term of four years. It has a bicameral Congress consisting of a Senate whose members are elected at large and a House of Representative whose members are elected by districts.

Executive authority is exercised by the President with the assistance of a Cabinet appointed by him and confirmed by the Commission on Appointments (constituted by duly chosen members from both houses of Congress). Cabinet members are responsible only to the President. The country is divided into provinces and chartered cities. Provincial governors and city mayors are elected as are their corresponding legislative bodies, viz., the Provincial Board and the Municipal Council or Board. The smallest political unit of organization which has a limited autonomy is the municipality; it has an elected mayor and municipal council. Municipalities in a province are under the general jurisdiction of the provincial government. In recent years, barrio councils have been established to provide some form of local self-government but the barrios remain under the political and administrative control of the municipality.

Health responsibility is vested in the Department of Health headed by the Secretary who is a member of the President's Cabinet. Two under-secretaries and the technical bureaus assist the Secretary in running the national health administration. Since 1958, the national health administration was decentralized or more accurately deconcentrated through the creation of regional health offices under regional health directors. The regional health offices have administrative supervision and control over provincial health officers and city health officers. Provincial health officers have supervision over municipal health officers of the rural health units. Hospitals are also under the jurisdiction of the regional health directors but the trend is to deputize the provincial health officers and city health officers for the administrative supervision of provincial and city hospitals respectively.

2.2.6 Singapore

This independent city state has a parliamentary system of government. Its cabinet has nine ministers, including a Minister for Health and Law. Under the present set up, the state has two local authorities, viz., the City Council and the Rural Board; steps are being taken however to effect an integration of these two bodies and to delegate administrative functions instead to the district authorities.

The health staff in the Ministry of Health and Law is headed by a Permanent Secretary who is also the Director of Medical Services. Under the Director of Medical Services are two main branches headed respectively by the Deputy Director of Medical Services (hospitals) in charge of all the hospitals and the Deputy Director of Medical Services (health) who has charge of divisions for rural health (city and rural), maternal and child health, school health, port and airport health, crematories and cemeteries and the abbatoir. Other divisions under the Director of Medical Services are the offices of the principal matron, accountant, government pharmacist, dental section, chemistry and tuberculosis control.

2.2.7 Vietnam

The country has an elected President and National Assembly. It is divided into provinces and autonomous cities. The chiefs of provinces and cities are appointed by the President. Provinces are divided into districts headed by chiefs who are appointed by the Secretary of State for Internal Affairs; the districts are made up of cantons whose chiefs are appointed by the provincial chiefs. Cantons are made up of villages; the latter are administered by the Administrative Council whose members are elected by the villagers.

The health administration is headed by a Minister of Health and has four branches, viz., the Directorate General of Hospitals and Public Health, the Rural Health Programme, the Malaria Eradication Programme and the Administration and Finance Branch. The Director-General is responsible for the operation of all the health activities in the country except malaria eradication. The rural health programme is separately administered although it is in close technical link with the Director-General. In general, each province has a provincial medical officer who is usually the chief of the provincial hospital. Sometimes the provincial medical officer is assisted in his public health duties by a technicien de santé. Under the provincial medical officer are the district health services, each of which is headed by a technicien de santé and assisted by a team of registered midwife, assistant nurses, and agents sanitaire. Besides rendering services on a district-wide level, including services in the district infirmaries and maternities, the district health staff provide technical assistance to the rural medical bureaus in the villages.

2.2.8 Western Samoa

Western Samoa has a constitutional head of state with ample executive powers who act upon the advice of the Premier and his Cabinet.

Health functions are exercised by the Ministry of Health who acts on the technical advice of the Director of Health. The latter has three services under him, viz., the Public Health Division, the Office of the Superintendent of the Apia General Hospital and the Office of the Principal Dental Officer. The country

is divided into health districts which do not necessarily coincide with the boundaries of the political districts. The health district is headed by a Samoan medical officer who is responsible to the Director of Health.

3. COST AND FINANCING

Western Samoa reported the highest percentage (16%) of health appropriation in respect of the national budget. The others reported the following percentages: Fiji, 13.5%; Malaya, 12%; Japan, 11.7%; Singapore, 10.6%; Territory of Papua and New Guinea, 10.3%; Philippines, 7.8%; North Borneo, 7.6%; Laos, 6.64%; Vietnam, 4%; and Korea, 1.54%.

It is difficult to obtain exact figures spent because of the varying systems of organization and different sources of funds. In all countries, the central government contributed the funds almost entirely (e.g., Fiji, Laos, Malaya, North Borneo, Singapore, and Territory of Papua and New Guinea and Western Samoa) or shared the cost with local governments. The proportion of local contributions varied from country to country (e.g., Japan, Korea (in operating the health centres), and the Philippines). In Vietnam, the health service at the local level is entirely financed from local funds; it receives some medical equipment and supplies however from a bilateral agency through the central government. In the Philippines, financing of local health services are derived from the national appropriation and from the "health fund" (made up of 5% each of the general funds of the province and each of the municipalities constituting the province). A few countries receive financing from the metropolitan government (e.g., Territory of Papua and New Guinea) or partly from bilateral sources (e.g., Laos and Vietnam).

The estimated annual costs of operating a rural health unit (as locally defined) are summarized below:

Fiji (rural hospitals, F£5000 or $12 651; rural dispensaries, F£1500 or $3796); Japan, ¥20 000 000 or $55 555 per rural health centre or ¥1 453 000 or $4036 in the units at the towns and villages; Korea, HW600 000 or $5400 for the health centre and $700 for the public doctor's clinic; Malaya, M$320 000 or $105 610; North Borneo, M$135 000 or $44 554; Philippines, ₱13 750 or $3562; Singapore, M$1.3 million or $429 043; Territory of Papua and New Guinea, A£9975 or $22 345; Vietnam, VN$152 640 or $2077; and Western Samoa, WS£7000 or $9600.

The percentage of the rural health service allotment paid for salaries is: Fiji, 67% for rural hospitals and 83.5% for rural dispensaries; Korea, 73% for the health centres and almost 100% for the public doctor's clinics; Malaya, 63.5%; North Borneo, 59.3%; Philippines, 86.3%; Territory of Papua and New Guinea, 40.1%; and Vietnam, 37.8%. The balance of the rural health services allotment is spent for travel and subsistence, supplies and equipment (including drugs) and miscellaneous administrative expenses.

The following is an estimate of the per capita cost of rural health services to the national population in each country: Fiji, $1.20; Japan, rural health centre, $0.16, town and village health units, $0.59; Malaya, $2.31; North Borneo, $0.68; Philippines, $0.80; Territory of Papua and New Guinea, $1.18; Vietnam, $0.69; and Western Samoa, $4.90.

In all countries, equipment and supplies are contributed to a greater or lesser extent by the central government. In Japan, the national government shares from 1/3 to 1/2 of the expenditures for the construction of the buildings and necessary equipment besides its share of the salaries of personnel; the national government also subsidizes the cost of the specialized services such as tuberculosis, maternal and child health, etc.

The salaries of the component personnel in the local health services are listed in Appendix 4 of this report. They indicate differences in salaries of similar posts between the countries even if it is recognized that differences in living conditions and standards do not permit accurate comparison.

Information on privileges extended to health personnel give the following:

In Fiji, expatriate medical officers receive an increment allowance of 25% on their salaries and this is paid by the British Treasury; quarters are provided for all expatriate officers and for all local staff stationed at the rural hospitals and dispensaries; others are given quarters when available.

In Malaya, medical and health officers who have completed the DPH course are given two salary increments; all receive a cost of living allowance and quarters.

In North Borneo, allowances of M$3 - 8 per night for special assignments and for camping M$2 - 4, the amount depending upon the level of salary received by the officer.

In the other self-governing countries, except perhaps Malaya, there are no special allowances and quarters provisions, except when on duty travel. Other benefits enjoyed by the staff depend upon civil service and retirement regulations operating in the countries.

Full-time staff in the local health services of all the countries, except for the public doctors in Korea, are not allowed private practice.

4. RURAL HEALTH SERVICES

4.1 Fiji

4.1.1 Title and description of the unit

Rural health services are of two types: the rural hospital and the dispensary. They are established in line with the Government's policies rather by authority of a special law. These health units are under the administrative and technical supervision of the Division Medical Officer. The Division Medical Officer has a staff doing service in the rural areas, e.g., the health sister who attends to maternal and child health, school health and immunization, and the health inspectors who look after environmental health.

There are no figures to indicate the population size and geographical area served as they vary but in the coastal communities the health units are about 20 miles distant from each other.

4.1.2 Functions

The rural hospitals render medical care for in-patients (viz., attendance to medical and obstetrical cases and emergency surgery) and out-patients; antinatal care; domiciliary treatment of tuberculosis and leprosy cases and follow up of their contacts; and health education.

The dispensaries render out-patient care; environmental sanitation in the villages; school health inspection; immunization, in co-operation with district nurses; and health education.

Fees for the health and medical services may consist of the following: one shilling (or $0.13) for each consultation with locally trained medical officer and two shillings (or $0.25) per day (with maximum F£ -/42/-) for in-patients to cover the cost of drugs, dressings, etc.

Fees are not charged on children under ten years of age, destitutes, patients suffering from infectious diseases, cases attending antenatal clinics and women attending family planning clinics.

4.1.3 Staffing pattern and duties of staff

Each rural hospital has a locally trained medical officer responsible for the administration and clinical services of the hospital; a nursing staff (consisting of locally trained nurses under a senior nurse) to assist in routine hospital nursing work; dressers responsible for simple dressings and dispensing; and clinical and other subordinate staff.

A dispensary is staffed with a locally trained medical officer who has administrative medical and public health duties; nurses who assist in the dispensary and render maternal and child health services; and subordinate staff.

4.1.4 Working relations with hospitals and clinics

There are referral services between the rural hospitals and dispensaries to the main hospital and specialized institutions (leprosy, mental disorders).

4.1.5 Reports

Locally trained medical officers submit to the Division Medical Officer: weekly notifications for infectious diseases, monthly reports on patients examined as well as villages and schools inspected, and annual reports.

The nurses submit to the health sister: monthly reports on health inspections and maternal and child health services rendered.

Health inspectors and assistant health inspectors submit to the Division of Medical Officer: monthly reports on inspections and work done in environmental health.

The Division Medical Officer submits to the Director of Medical Services: annual reports of the Division's activities and which contain "as much statistical data as possible".

4.1.6 Manual

There is none in use, although government general orders, financial orders, department circulars on special subjects and duplicated copies of weekly broadcasts on technical subjects are distributed to appropriate health staff for their information and guidance.

District nurses are however issued a manual containing instructions on their administrative duties and on reporting.

4.1.7 Building plans and siting

There are no standard plans for the rural hospitals and dispensaries. Dispensaries are provided with consultation and dressing rooms and, in many instances, a waiting room.

Siting of rural hospitals and dispensaries is decided on the basis of accessibility.

4.1.8 Guidance and supervision of the local health units

These are received from the Division Medical Officer and his staff and occasionally from specialist advisers from the Medical Department at the central level.

4.1.9 Relation of rural health units to local governments

The relation of the rural health units to local governments is described as being more of "a relationship between individual rural health workers and the local government than between rural health units and local government, as services have not been developed along the lines of a co-ordinated health unit controlling all health activities in an area".

The locally trained medical officers of a rural hospital or dispensary render advisory services to the local heads of Fijian villages on public health matters. They have full responsibility, however, in communicable disease control.

Outside of Fijian villages health inspectors and assistant health inspectors are responsible to the local sanitary authority.

4.1.10 Collaboration with voluntary and official agencies

The rural health services collaborate with voluntary and official agencies in certain activities, e.g., with the Education Department in school medical examination and inspection, environmental health, immunization; women's committees for the local maternal and child health activities and first aid; and with the Fijian administration in connection with the observance of public health regulations and environmental health in the villages.

4.1.11 Community participation

Community participation is confined largely to the activities of the women's committees.

4.1.12 Autonomy in developing local health programmes

This is theoretically possible for the rural health units, although approval of the Director of Medical Services will be required; local health planning is not being done yet.

4.1.13 Programmes

Because of the dual set-up of organization and administration at the local level, two types of programmes are undertaken.

Local programmes are developed at the central level for the Fijian communities. Priorities are decided by the Division Medical Officer in consultation with the local medical officers while their implementation rest with the latter.

Local councils undertake local public health planning with technical advice from the central and intermediate levels. Special health programmes, such as the control of tuberculosis and leprosy, are planned and implemented by the central health agency.

4.1.14 Assessment

Commonly observed health problems are tuberculosis and poor sanitation in the villages. Local health administration is rendered difficult by the dual administrative system and limited budget.

Notable accomplishments include provision of country-wide clinical services for the population, reduction of infant mortality (55/1000 live births in 1955 to 36/1000 live births in 1960) and the decrease of newly registered tuberculosis cases (721 in 1958 and 566 in 1960),

4.2 Japan

4.2.1 Title and description of the unit

The Health Centre Law of 1947 requires each local government to establish one health centre, the operational cost of which will be shared by the central and local governments.

The law describes the health centre as a community health service agency with health administration functions as may be delegated by competent executive authority (i.e., the prefectural governor or the city mayor).

There are five types of health centres: the urban health centre (U type), the rural health centre (R type), the urban-rural health centre (U-R type), the health centre with small population spread over a large area (L type), and exceptionally the health centre with small population in a small area (S type).

The district rural health centre in Japan is the equivalent of the rural health unit in other countries. There are 428 units of this type in the country.

A rural health centre is headed by a doctor. It is organizationally made up of sections and sub-sections as follows: (1) General Affairs (general affairs, medical affairs, pharmaceutical affairs); Sanitation Section (environmental sanitation and food sanitation); Health and Prevention Section (communicable diseases control, tuberculosis control, venereal disease, disease control, maternal and child health, dental health, nutrition); and Services Section (health education, health statistics, public health nursing, medical social work, and laboratory).

A rural health centre serves an average of five local authorities (towns and villages), either directly from the health centre or through its sub-centres. Each local authority has certain health responsibilities. For example, a town has a health section which renders personal health services and environmental health and which co-ordinates with the national health insurance. There are also health units in the villages, but their services are more limited.

The population covered by a rural health centre (R type) varies from 30 000 to as much as 250 000; its geographical area ranges from under 50 to 1000 square

kilometres. The L type rural health centre serves a population ranging from 30 000 to 100 000 and covers an area of 250 to 1000 square kilometres. The S type rural health centre serves a population of under 30 000 people and covers an area of 50 - 750 square kilometres.

4.2.2 Functions

The functions according to law are: "health education, vital and health statistics, improvement of nutrition and food sanitation, environmental sanitation, public health nursing, medical social service, laboratory service, prevention of tuberculosis, control of venereal diseases and other communicable diseases, maternal and child health, dental hygiene and other local health programmes, as required, such as endemic disease control, etc."

Routine activities consist of health consultation clinics, well-baby conferences, mass chest survey, home visits, community health education, and inspections and field supervision of environmental health activities.

Health services are generally rendered free of charge but in some cases are paid for at cost, as may be provided by local ordinance.

4.2.3 Staffing pattern

The number varies according to the type of rural health centre (e.g., 30-46 in the R Type, 29-32 in the L type, and 14 in the S type) but the complements are: physicians, dentists, public health nurses, clinical nurses, midwives, X-ray technicians, nutritionists, dental hygienists, laboratory technician, pharmacists, veterinarians, sanitary or public health engineer, health statistician, card keeper, health educator, medical-social worker, communicable disease control officer, tuberculosis control officer, clerks and drivers.

4.2.4 Working relations with hospitals and clinics

There is normally a two-way referral system between the hospitals and the rural health centres.

4.2.5 Reports

The health centres prepare daily, weekly, monthly, semi-annual and annual reports

4.2.6 Manuals

These manuals are available: (a) "Health Centre Operation" by the Health Centre Section of the Ministry of Health and Welfare (1961); "Public Health Administration Services" by the Section of Public Health in Japan (1960-1961); and "Public Health in City, Town and Village" by the Health Centre Section of the Ministry of Health and Welfare in Japan (1962).

4.2.7 Building plans and siting

There are specifications for the health centre space according to class, viz., Class A, 9075 ares; Class B, 7562 ares; Class C, 6050 ares; and sub-centres, 4537.5 ares. There are no specific requirements for such details as consultation, examination and waiting rooms.

The siting of the health centre is guided by its convenience and accessibility to the population. The branch units of a health centre (e.g., sub-centres) are of course located within the area of the health centre district.

4.2.8 Guidance and supervision of the local health units

These are ultimately received from the Ministry's technical bureaus. The rural health centre staff are responsible for providing technical advice to the health personnel of the local authorities.

4.2.9 Relation of rural health units to local governments

Under the law the local government (prefectural level) is required to establish and finance a certain percentage of the cost of the health centre. Town and village authorities also have local responsibility for health services. The administrative functions given to the health centre is by law delegated by the prefectural government to the chief of the health centre.

4.2.10 Collaboration with voluntary and official agencies

A policy on joint-community health planning was evolved in 1960 and is now being implemented.

4.2.11 Community participation

This is of recent introduction (post-war) and is well-developed in the field of sanitation, vector control and maternal and child health.

4.2.12 Autonomy in developing local health programmes

The rural health units are autonomous but their programmes must be consistent with the policies and programmes laid down at the national level.

4.2.13 Programmes

Local health programmes are developed along the overall national health programme.

Local health authorities determine priorities in conformity with guidelines set down by the health centre at the prefectural level.

Town and village health authorities are assisted in local programme development by their respective advisory bodies.

Local health services have integrated services.

4.2.14 Assessment

Health problems are ascribed to results of the urban shift of the population and the difficulty of providing adequate medical care to remote rural areas.

Health services improvement during the past decade are results partly of economic growth which is responsible for improved living conditions and a high standard of service.

The challenge to local health planning is its capacity to pursue goals which will meet the needs of communities undergoing rapid social and economic change.

4.3 Korea

4.3.1 Title and description of the unit

The health centre is the basic rural health unit. The public doctor's clinic in the myun is administratively under the health centre. The Provincial Director of Health and Social Affairs has administrative and technical supervision over the health centres and the public doctor's clinics. The health centre serves an overall population size of up to 200 000 while the public doctor's clinic has a coverage of 10 000 - 15 000 people.

These services were authorized under the Public Health Law which was promulgated on 13 December 1956.

4.3.2 Functions

The health centre's functions include "maternal and child health; tuberculosis control, dental hygiene, nutrition, food sanitation, environmental sanitation (housing hygiene, drinking water and well sanitation, sewage disposal control, rodent control), rehabilitation, population and vital statistics, health education, public health administration and occupational health". The health centre's services to the population are free.

The public doctor's clinics are clinically oriented but they are now being involved in immunization. The public doctor is usually drafted by the Government for a two-year period; he receives a subsidy and is allowed to practice privately. He does not attend to deliveries, but gives emergency medical services in the myun and free services to indigents.

4.3.3 Staffing pattern and duties of staff

The health centre's staff consists of a medical officer, three public health nurses, one sanitarian, one or two laboratory technicians, clerk and janitor.

The public doctor's clinic is staffed by only the doctor himself.

The health centre medical officer provides consultative services in the centre and makes home visits; he has administrative and technical supervision over the health centre staff and the public doctors in his area.

The public health nurses render public health nursing and midwifery duties. One of the three nurses is contributed by the Ministry as a family planning nurse, but all assist in the clinics, conduct home visits and give immunization.

The sanitarian is responsible for routine sanitary inspections; in the clinic, he sometimes performs the chores of a laboratory technician.

In health centres equipped with X-ray units there are usually X-ray technicians but in all health centres laboratory technicians look after routine laboratory tests.

4.3.4 Working relations with hospitals and clinics

Health centres refer patients to the provincial hospitals; each hospital usually receive referrals from 3-5 health centres. The public doctor makes medical referrals to the hospitals while matters dealing with preventive work (maternal and child health) are referred to the health centre. Cases requiring special care (e.g., tuberculosis and leprosy) are referred directly to the institutions concerned.

4.3.5 Reports

Reports of health centres on routine activities and on communicable diseases are sent to the Provincial Director of Health and Social Affairs.

4.3.6 Manual

Nil.

4.3.7 Building plans and siting

There are no official building plans for health centres and public doctor's clinics. The Government's present policy requires the establishment of a health centre in every gun or city and a public doctor's clinic in every myun or town without practicing physicians. These units are constructed in accessible areas which have also high population density.

4.3.8 Guidance and supervision of the local health units

The health centre and the public doctor's clinic receive administrative and technical supervision from the Office of the Director of Health and Social Affairs. The Chief of the Section of Public Health has immediate responsibility for the health centres and the latter for the public doctor's clinics. The Ministry of Health is responsible for determining policy and giving technical guidance in respect of health programmes in the provinces. The Bureau of Medical Affairs and Bureau of Public Health are delegated to interpret these policies and supervise field activities through the Office of the Director of Health and Social Affairs.

4.3.9 Relation of rural health units to local governments

The health centres receive partial financial support from the provincial government. The Provincial Director of Health and Social Affairsis administratively responsible to the Provincial Governor. Locally, the health centre doctor co-operates with the gun chief. The public doctor's clinic is financed entirely by national funds.

4.3.10 Collaboration with voluntary and official agencies

This is not yet developed.

4.3.11 Community participation

This is not yet developed.

4.3.12 Autonomy in developing local health programmes

Present regulation permits local health planning but it is not yet developed.

4.3.13 Programmes

Local programmes are developed centrally although the provincial health administration is increasingly becoming active in supervising their implementation. Priority determination rests with central and intermediate health authorities. The health centres and the public doctor's clinics implement the local programmes.

Present policy requires the integration of curative and preventive services.

Special health services (e.g., control of tuberculosis, leprosy and malaria) are planned and administered at the central level.

4.3.14 Assessment

The recently completed Government/AID/WHO health survey indicates the need for more provincial supervisory and local health personnel. A problem of recruitment is the low compensation given. Local human resources are available to meet staffing requirements although additional training facilities for their public health orientation are required. These problems are recognized and steps are being taken to remedy the situation.

4.4 Laos

4.4.1 General

Rural health services have not yet been developed. Under the present system of organization the Director-General of Health Services is responsible for all health activities in the country (preventive and medical). There is at the provincial level a provincial medical officer who is responsible for the health and medical services in the province, and in this capacity he directs activities in the provincial hospital and supervises operation of the infirmaries and dispensaries. At the muong or district level, a male nurse has charge of a dispensary; sometimes a few beds are attached to this dispensary and the unit then is called an infirmary. In the cantons (tassengs) and villages (bans), there may be rural midwives who take care of mothers and render minor medical services.

At present, there are six provincial hospitals out of sixteen provinces, six infirmaries out of 103 muongs, and 124 rural dispensaries out of 803 tassengs and 11 657 bans.

4.5 Malaya

4.5.1 Title and description of the unit

The rural health unit serves an area of 50 000 population and is made up of the main health centre, four sub-centres and twenty midwife's clinic cum quarters. The main centre and sub-centres are responsible for rendering health services to 10 000 people each. Each midwife's clinic caters to midwifery services for each 2000 population, i.e., the 20 midwife's clinics serve a total population size of 40 000 people; midwifery services for the remaining 10 000 population are directly given by the main centre and four sub-centres on the same ratio of 1:2000.

A rural health unit is under the immediate and technical supervision of the Medical Officer of Health in the administrative district who in turn is responsible to the State Health and Medical Officer. Overall national direction of the rural health scheme rests with the Director of Medical Services in the Ministry of Health with the assistance of the Deputy Director of Medical Services for Health.

4.5.2 Functions

The rural health unit has the following functions: maternal and child health (domiciliary midwifery, school health and nutrition); communicable diseases control (including simple laboratory services); public health nursing; environmental health; medical care (out-patient dispensary, motor and riverine travelling clinics, dental health and mercy flights with the assistance of Malayan Air Force for emergency cases); compilation and keeping of health records; and health education of the public.

In areas which are far from district or general hospitals, a sick bay of 4-6 beds is normally provided in the main health centre. Curative and preventive services are rendered in the rural health units with emphasis on the latter. Services are given free of charge.

4.5.3 Staffing pattern and duties of staff

The rural health unit staff are constituted by the following:

Main health centre

Medical and Health Officer
Dental Officer
Public Health Nurse
Public Health Inspector
Dental Nurse
Hospital Assistant
Dispenser
Clerk
Assistant Health Nurses (2)
Rural Midwife
Public Health Overseer
Sanitary Labourers (2)
Attendants (2)
Dental Attendants (2)
Drivers (daily basis)
Gardener (daily basis)

Sub-Centres (for each of the four units)

Staff Health Nurse
Hospital Assistant/Dispenser
Clerk
Assistant Health Nurses (2)
Rural Midwife
Public Health Overseer
Sanitary Labourer
Attendants (2)
Drivers (daily basis)

Midwife's clinic cum quarters (for each of 20 units)

One midwife.

Duties of staff

The Medical and Health Officer plans, organizes, develops, administers and provides supervision over all the activities of the rural health unit; renders health and medical services (e.g., clinic and dispensary services, school health inspections, communicable diseases control, etc.); and submits periodic reports of his activities to officials at higher levels.

The dental officer is administratively under the Medical and Health Officer but is technically under the supervision of the Senior Dental Officer. He is responsible for the organization and operation of the dental services and supervises the work of dental nurses in the rural health unit.

The public health nurse receives technical supervision from the Public Health Sister at the district level. Her duties include: public health nursing services to a population size of 10 000; supervision of nursing and midwifery staff of the rural health unit; and participation in the public health nursing work of staff nurses in the main health centre.

The public health inspector is responsible for environmental health functions of the rural health unit outside the jurisdiction of local authorities. His duties in environmental health include housing, rural water supply, excreta disposal, refuse disposal, vector control, food hygiene and health education.

The staff health nurse (nurse/midwife, Division I) for each sub-centre performs public health nursing/midwifery functions in an area of approximately 10 000 population, supervises and works with the assistant health nurses and five rural midwives and generally deals with public health nursing.

The dental health nurse works directly under the dental officer and renders dental hygiene services to children at the health centres, school clinics and mobile dental clinics and conducts dental health education.

The hospital assistant is under the supervision of the Medical and Health Officer. He renders dispensary and immunization services to patients and public health education; handles travelling clinics, dispensary and, when needed, performs simple laboratory tests.

The auxiliary health staff includes rural midwives assigned to the midwife's clinics. They render domiciliary midwifery and assist in anti- and post-natal care. The assistant health nurses assist in the out-patient clinic and conduct home visiting, health teaching, school health inspection and maternal and child health clinics. The public health overseers perform general environmental health work. The auxiliaries are under the respective supervision of their technical counterparts.

4.5.4 Working relations with hospitals and clinics

There is a referral system between rural health units, district and general hospitals and special institutions. In some areas, the medical officer of the district hospital may conduct clinics in the nearest health centre.

4.5.5 Reports

Reports of the rural health unit includes maternal and child health activities (monthly and annually) and immunization (monthly and annually).

The Government recognizes the need of developing a more comprehensive form of reporting which will incorporate all returns on the accomplishments of various services rendered by the rural health unit.

4.5.6 Manual

This has not yet been developed.

4.5.7 Building plans and siting

Building plans for each type (main, sub-centre, and midwife's clinic) are now being reviewed for the purpose of further improvement in the light of recent experience.

Siting is determined by area needs, size of population, accessibility, existence of other services, co-ordination with the rural development programme. A basic guideline is to build the main health centre peripherally and away from a district and general hospital.

4.5.8 Guidance and supervision of the local health units

This is ultimately received from the Ministry but regular technical supervision is given by the Chief Medical and Health Officer and Medical Officer of Health and their staff.

4.5.9 Relation of rural health units to local governments

Services are rendered to rural areas outside local authorities but the financing of the rural health units lies exclusively with the Federal Government.

4.5.10 Collaboration with voluntary and official agencies

This is generally promoted with reference to local voluntary organizations. The rural health scheme is part of the national rural development programme.

4.5.11 Community participation

Community participation is through the Rural Development Programme. In the Kampongs or villages the "Penghulus" or village headmen co-operate in the activities of the rural health unit; at the district level the District Development Committee discusses with the medical and health officer concerned health aspects of district improvements requiring community participation.

Community participation is promoted through the Kampong Committee at the village level as envisaged in the second phase of the Rural Development Programme. Youth clubs, Women's Institutes and other voluntary organizations are mostly subsidized by the Government to participate in health activities.

4.5.12 Autonomy in developing local health programmes

Autonomy of the rural health unit in developing local health programmes is envisaged in the existing policies of the Rural Health Scheme.

4.5.13 Programmes

Local health programmes outside of local council areas are developed from the overall plan of the Rural Health Scheme. Priorities are determined by the medical and health officer of the rural health unit with the guidance of the District Medical Officer of Health. Locally, community groups are increasingly being involved in local health planning and in participating in health activities.

Curative and preventive medical services are integrated in the unit's activities. Special disease programmes (e.g., tuberculosis, leprosy, etc.) are under federal direction and administration but they are co-ordinated with the local health activities in the field.

4.5.14 Assessment

Local programmes are being expanded and the pre-existing services (e.g., maternal and child health centres, dispensaries, sanitary services) are being integrated into the rural health unit.

There is a shortage of health personnel in the rural health units. Facilities for health personnel training are being expanded. Operationally, the rural health units need to have systematic recording of their activities.

With expanding services and increased health personnel, provision is needed for additional supervisory personnel and for consultant staff at the national level.

4.6 North Borneo

4.6.1 Title and description of the unit

Rural health services are built into the regular health services as the country, except for two towns, is predominantly rural.

Health services are organized into seven "medical/health areas" under an area medical officer. Each area will have at least one district health centre and smaller units composed of a general sub-centre with dispensary and preventive services and a village sub-centre which is primarily preventive (maternal and child health and sanitation). Each district health centre may also have mobile health units (land and riverine) to cover areas remote from the sub-centres. Hospitals in the area are under the overall responsibility of the area medical officer.

The above set up is being developed in accordance with the present organization and administration of the medical and health department and is planned to be tied up with the maintenance phase of malaria eradication when it it achieved.

Each district health centre serves a population of 5000 - 50 000 as may be determined by accessibility and geographical location. The general sub-centre is intended to cover an average population of 8000 while the village sub-centre serves about 2000 population.

4.6.2 Functions

The aim is to integrate curative and preventive work in the various levels of health services and co-ordinate health and medical (hospital) activities under the overall leadership of the area medical officer.

The service is responsible for "the ascertaining and treatment of all sickness in the area until a patient actually reaches the area hospital (if this is necessary)". If the district health centre is sited in the same place as a hospital, treatment will be made at the out-patient department of that hospital.

The area health service ascertains and takes measures to prevent notifiable endemic diseases, including tuberculosis control and malaria.

The area health service "will provide, manage and develop services for the care of the pregnant women, the mother and child"; emphasis is laid on domiciliary care with referrals to the hospitals where necessary.

The area health service is also responsible for the health education of the public, health aspects of nutrition, raising standards of general and personal hygiene, development of school services and collaborates with other agencies interested in health.

The services rendered by the component units of the area health service are free of charge.

4.6.3 Organization and staffing pattern

The area health unit is made up of the following:

The area health unit headquarters is staffed with the area medical officer, an area health visitor (or senior health nurse) and a senior health inspector plus sufficient clerical and records staff.

The district health centres are staffed with the basic requirements such as a hospital assistant (curative), district health nurse and district health inspector. It is planned to add also a tuberculosis control technician and a microscopist.

When indicated by heavy patient load the district health centre will be staffed with an additional complement of hospital assistants, nurses, health inspectors, midwives (registered and village) and multi-purpose health workers. One of the health assistants is usually detailed to the mobile health unit.

The general sub-centres are staffed with hospital assistants (one or more), village nurse/midwives and multi-purpose male health workers proportionate to needs.

The mobile unit is staffed with a hospital assistant, an attendant and driver. They are usually based on a conveniently located district health centre or general sub-centre.

Duties of staff

The area medical officer is administratively responsible to the Director of Medical Services for the following duties: overall charge and co-ordination of curative and preventive services in the area; compiling all reports and returns dealing with the health situation and programme in the area; direction of any local teaching programme; co-ordination of the medical services of estates and voluntary agencies.

The area health visitor is responsible to the area medical officer and is responsible for the guidance of the care of pregnancy and of the mother and child.

The senior health inspector is responsible for the supervision of the work of district health inspectors and lower echelon workers in environmental health.

The senior hospital assistant (district health centre) undertakes and supervises all curative work in his district; assists in tuberculosis control; renders medical services (curative) in the schools and conducts modified medical examinations; and prepares reports.

The hospital assistant is responsible to the senior hospital assistant and assists him in the district health centre or works in the general sub-centre or in the mobile clinic, supervises curative work in the schools and undertakes ambulance service for the sick.

The district tuberculosis control technician is responsible for the administrative and day-to-day aspects of tuberculosis control.

The district health inspector is responsible to the senior health inspector for activities connected with environmental health, communicable disease control, vital and health statistics and health education; works closely with the District Council, and submits reports of his duties.

The district microscopist performs simple laboratory tests connected with curative and preventive work, especially tuberculosis and malaria.

The district nurse is responsible to the area health nurse for the care of pregnant women, mothers and children and health education. She organizes all maternal and child health clinics in her area and submits reports of her activities.

The registered midwife is employed in localities under a Town Board. She receives supervision from the district health nurse. Her duties include domiciliary attendance on cases and participation in ante- and post-natal clinics and health education services.

The village nurse/midwife works under the supervision of the district health nurse in a community with a population of approximately 2000. Her duties cover domiciliary midwifery, referral of abnormal delivery to the district health nurse or hospital, maternal and child health activities in general, BCG vaccination, notification of suspected cases of malaria, tuberculosis and other notifiable diseases to multi-purpose health workers.

The multi-purpose village health worker works under the supervision of the curative and preventive units of the district health centre or general sub-centre. His duties cover ascertaining of communicable diseases (for suspected malaria cases, he takes blood smear); assisting in tuberculosis control and in mass anti-helminthic treatment, simple medical and wound dressings, health education, simple procedure in environmental health and registration of births and deaths.

The traditional midwife assists the village nurse/midwife and is required to train for a period of three months.

4.6.4 Working relations with hospitals and clinics

It is planned to develop a system of referrals from the peripheral health units to the hospitals. There are no private practitioners in the rural areas but there is co-operation between the staff of the health unit and the mission and estate health services.

4.6.5 Reports

Reporting is done regularly by discipline to the next higher level and eventually the area medical officer submits the consolidated reports to the Director of Medical Services. The reports include: weekly infectious disease returns; monthly general morbidity returns; monthly quantitative and work contents; monthly MCH returns; monthly immunization returns; monthly environmental health returns; monthly administrative, personnel and finance reports; and the general annual report.

4.6.6 Manual

Nil.

4.6.7 Building plans and siting

The general sub-centres usually have provision for consultation room, examination room and waiting room or area and the health centres (MCH centres only so far) should have a consultation room, one or two examination rooms with cubicles, a waiting room, and inoculation room. The MCH clinics usually have an examination room and waiting space.

Criteria for siting

Area headquarters should be located in the principal hospital in the area and the headquarters of the administrative district should be closest to the area of population density and must be reasonably accessible.

4.6.8 Guidance and supervision of the local health unit

The area medical officer is directly responsible to the Director of Medical Services. The staff of the district health units, general and village sub-centres receive administrative and technical supervision from the area medical officer and his immediate technical staff.

4.6.9 Relation of rural health units to local governments

Health committees of district and local councils work with the health staff provided by the Central Government. The councils are consulted in the siting of rural medical and health services. It is anticipated that at a later stage local councils will provide certain categories of technical staff to the health services under the technical supervision of the area medical officer.

4.6.10 Collaboration with voluntary and official agencies

This exists particularly in the fields of education, agriculture, and public works. There is also operational co-operation with such organizations as the Red Cross, St. John, and Anti-tuberculosis Association.

4.6.11 Community participation

This is at present limited to the visiting boards of hospitals and dispensaries and to health committees of district councils.

4.6.12 Autonomy in developing local health programmes

This is considered potentially substantial and requires only the guidance of the Director of Medical Services.

4.6.13 Programmes

Local programme planning is done at the central level. Local councils however plan their own health programmes with the guidance of health authorities at the area and central levels.

Outside of local councils, therefore, programme priorities are determined by the area medical officer. Local health services are integrated and provision made for referrals to the hospitals by the health centres and dispensaries. Malaria services are run under central direction but the tuberculosis service is partially integrated in the area services. Eventually it is planned to integrate malaria and tuberculosis work at the area and local levels.

4.6.14 Assessment

The services are still developing and more funds will be needed for expansion.

The over-riding health administration's needs for some time to come are more technical staff and facilities for their training.

4.7 Philippines

4.7.1 Title and description of the unit

The rural health unit is established by law (Republic Act No. 1082 and No. 1891) to provide the basic health services to every municipality.

The rural health unit is under the administrative and technical supervision of the provincial health officer.

Municipalities vary in size and population and consequently the personnel complement of the rural health unit is by law (Republic Act No. 1891) increased in accordance with the municipal population.

4.7.2 Functions

Subject to the administrative and technical supervision of the provincial health officer the rural health unit serves as the municipal health authority and renders the basic health services, i.e., maternal and child health, communicable disease control, environmental health, public health nursing, keeping vital and health statistical records, health education and a limited amount of medical care. For convenience, the municipality is administratively divided into barrios where regular health visits are made either as a team or by individual health personnel.

Services provided by the rural health units are free of charge.

4.7.3 Staffing pattern and duties of staff

The rural health unit staff consists of a municipal health officer, a public health nurse, a public health midwife and a sanitary inspector.

Under the revised Rural Health Act, eight "categories" of rural health units corresponding to municipal population sizes are established as follows:

Category I	(population of up to 2000)	one midwife and one sanitary inspector
Category II	(population, 2000 - 5000)	one public health nurse, one midwife, one sanitary inspector
Category III	(population, 5000 - 10 000)	one municipal health officer as head of unit, one public health nurse, one midwife, one sanitary inspector
Category IV	(population, 10 000 - 20 000)	one municipal health officer, as head of unit, one public health nurse, two midwives and one sanitary inspector
Category V	(population, 20 000 - 30 000)	one municipal health officer as head of unit, two public health nurses, two midwives, and one sanitary inspector
Category VI	(population, 30 000 - 40 000)	two municipal health officers, two public health nurses, two midwives, two sanitary inspectors
Category VII	(population, 40 000 - 50 000)	two municipal health officers, two public health nurses, three midwives and three sanitary inspector
Category VIII	(population, 50 000 and over)	two municipal health officers, four public health nurses, four midwives and three sanitary inspectors

Duties of staff

The municipal health officer has general supervision over the hygienic and sanitary conditions of the municipality, including the enforcement of public health laws and regulations; communicable diseases control, public health education, rendering MCH services, including attendance to or referrals to hospitals of difficult cases of labour; medical care, including attendance on emergency cases to poor patients; keeping health records and statistics; performing medico-legal examinations; submitting monthly reports to the provincial health officer and attendance at meetings called by the supervisory authority.

The public health nurse assists in the clinics and in the homes, assists in communicable disease control (detection, management and control of cases, supervision, immunization, epidemiological interviews), health education, MCH, keeping of health records, preparing reports and attendance at official conferences.

The public health midwife prepares the health centre on clinic days, assists the public health nurse in the clinic, conducts home visits on MCH (pre-, post- and natal care), reports difficult cases to the municipal health officer and attends official meetings as required.

The sanitary inspector assists in the supervision of the general sanitary condition of the municipality and the enforcement of environmental sanitation regulations, conducts health education on sanitation; helps in disease control (e.g., immunization, home visiting of communicable disease cases and follow up of contacts) and assist in dispensary work.

4.7.4 Working relations with hospitals and clinics

Routine referral of cases to a government maternity and/or general hospital is made by the rural health unit staff concerned. The referral of convalescent and discharged cases of infectious diseases and delivered mothers to rural health units by hospitals is being developed. More and more, a division of labour is being made in MCH activities with the puericulture centres.

4.7.5 Reports

A number of reports (weekly, monthly, semi-annual and annual) are required of health personnel. The contents of these reports reflect information indicating quantity rather than quality of service and for this reason a review of the reporting system is being contemplated.

4.7.6 Manual

The Department of Health has one for the use of the rural health unit staff.

4.7.7 Building plans and siting

The Department of Health has standard plans for rural health units.

4.7.8 Guidance and supervision of the local health units

In the rural health unit, the municipal health officer has overall technical and administrative supervision over the members of the team. The public health nurse usually has immediate supervision over the midwife.

In addition, technical staff from the office of the provincial health officer give technical guidance to their opposities in the rural health unit.

Since the reorganization of the Department of Health, technical supervision over the provincial health offices and rural health units have become available from the consultant staff of the regional health office.

4.7.9 Relation of rural health units to local governments

Local budgetary contribution to the rural health unit from the health fund is prescribed by law; additional contributions can be made however at the discretion of the municipal council. The municipal health officer has recommendatory authority for local health ordinances and their enforcement. The municipal health officer co-operates with the local administration and exercises local leadership in all matters concerning health. Nevertheless, the municipal health officer is responsible to the Department of Health, through the provincial health officer and not to the local government.

4.7.10 Collaboration with official and voluntary agencies

By policy, the rural health unit co-operates in all activities with health implications, e.g., school health and school health education with the Department of Education; nutrition with the Department of Agriculture, various social services with the Social Welfare Administration, certain public works activities related to health as in bilharziasis control, with the Philippine Tuberculosis Society in tuberculosis control, and the puericulture centres in maternal and child health activities. The Presidential Assistant on Community Development (PACD) and the rural health units co-operate in undertaking community-sponsored health programmes.

4.7.11 Community participation

This is relatively well developed. Construction of health centre buildings are frequently done with locally contributed labour and materials. Special health activities may also be supported by the local community or in the case of the puericulture centres.

4.7.12 Autonomy in developing health programmes

Current policy and practice permit local health service initiative in developing local health programmes.

4.7.13 Programmes

The rural health units exercise initiative in planning their programmes, subject to guidance and supervision at higher level. At present, however, rural health units are satisfied in performing their statutory duties and in complying with directives they receive.

The municipal health offieer ean determine local priorities but, by and large, this is usually decided for him by the provincial health officer.

Where a local health programme is drafted it is subject to review and approval of the provincial health officer. Plans involving expenditure of the health fund need the approval of the provincial health officer and the regional health director. Special health programmes funded by the local councils do not usually need approval from higher health authority except for technical reasons. Local health programmes involving co-operation with the school health authorities and the puericulture centres are planned locally. Consultative services may however be sought from the provincial or regional level.

The services rendered by the rural health units are integrated. The special health services are directed from the regional level and are being rapidly integrated at the local level. At present, the rural health units undertake tuberculosis control, including BCG vaccination, and leprosy control. Consultant and advisory assistance in these fields are extended from regional and central levels.

4.7.14 Assessment

A national/WHO team assessed the rural health services early in 1962. Its recommendations include a suggestion to review present functions and staffing, strengthening of training and further study of the integration of specialized health services.

4.8 Sarawak

4.8.1 Title and description of the unit

The basic unit in the local area is the dispensary which is either static or mobile (launch or motor vehicle). The dispensary renders primarily curative work. On the average, a dispensary serves a population of some 20 000 people.

There are however other local health activities, such as environmental health which is under the local councils and malaria eradication and tuberculosis control which are under the medical department.

Health services performed in the local area are co-ordinated by the Division Medical Officer who has overall charge of the health and medical activities in his administrative area.

4.8.2 Functions

The dispensaries handle mostly curative services which are all free.

4.8.3 Staffing pattern

The dispensaries are staffed by hospital assistants and attendants.

4.8.4 Working relations with hospitals and clinics

The dispensaries evacuate cases when indicated to the hospitals. Maternity and child health clinics and district midwives evacuate their patients to the dispensaries or directly to the hospitals.

4.8.5 Reports

These consist of monthly reports to the division medical officer from the dispensary and from other health staff in local areas.

4.8.6 Manual

This is under preparation.

4.8.7 Building plans and siting

The dispensary has provisions for examination and treatment rooms, a ward or two, a waiting room, kitchen, bath and toilet and store room.

There is also a standard plan for a local hospital.

4.8.8 Guidance and supervision of the local health units

The Division Medical Officer has direct supervision over the dispensaries and co-ordinates their activities with the hospitals, government clinics (maternal and child health), maternal and child health, and sanitation services of the Advisory Local Council Service, tuberculosis control and malaria eradication. Except for the services under the Advisory Local Council Service, over which he has technical supervision, all health services are under the administrative and technical supervision of the Division Medical Officer.

4.8.9 Relation of unit to local governments

The dispensaries are independent of local governments but liaison is established through the Division Medical Officer. The latter also attends local council meetings.

4.8.10 Collaboration with voluntary and official agencies

This is accomplished through the Division Medical Officer who co-operates with the Red Cross, Blind Society, Anti-tuberculosis Society, etc.

4.8.11 Community participation

The "home helps" are voluntary workers. Community participation on health matters is also observed under the community development scheme in some areas of the country.

4.8.12 Autonomy in developing local health programmes

The dispensary's organization limits opportunities for programme planning. The rural councils however have discretion, particularly in maternal and child health and sanitation activities. The rural councils receive advisory services from the Division Medical Officer.

4.8.13 Programmes

Local programmes are developed at the central level after consultation with the Division Medical Officer. Local councils plan their health programmes under the guid ance of the medical department.

Local programme implementation, including the determination of priorities, is discussed between the Division Medical Officer and the rural health staff and local councils.

Local health services are integrated under the direction of the Division Medical Officer.

4.9 Singapore

4.9.1 Title and description of the unit

There is no formally organized rural health unit as the term is known in other countries. Health services in the rural areas are rendered by two distinct branches of the health ministry, viz., the District Health Services of the Environmental Health Branch and the Maternal and Child Health Service (Rural). Their services are provided under an ordinance of the State and are rendered free of charge.

The district health service is a division in the office of the Director of Medical Services; it is headed by a District Health Officer. The service deals with environmental health and communicable disease control and includes anti-malaria and anti-mosquito control.

The Maternal and Child Health Service is under a senior health officer in the Office of the Director of Medical Services. A supervisor of midwives (rural) has charge over 20 rural main clinics, 20 rural visiting clinics and 8 Kampong midwife's clinics.

The services rendered by the district health service and the MCH service are free of charge.

The rural main clinic is staffed with 1-2 health officers, 1-2 sisters, 4 staff nurses, 4-7 midwives, 1-2 clerks, 3 health servants. The rural midwife centre has 1-2 midwives and 1 health centre. The visiting centre is staffed with health personnel drawn from the main clinics.

4.9.2 Guidance and supervision received

Midwives and nurses are under the supervision of a sister in each centre who is responsible to the Principal Health Matron. Doctors are responsible to the senior medical officer in charge of MCH services. Environmental health personnel are responsible to the district health officer who in turn is responsible to the senior health officer in charge of environmental health.

4.9.3 Relation of unit with local government

The services are provided by the central government. Under present government policy, rural and urban health activities which were previously administered separately by the Rural Board and the City Council are now being integrated under the overall technical direction of the Director of Medical Services.

4.9.4 Collaboration with voluntary and official agencies

The Environmental Health Branch works in close liaison with the Public Works Department and the Department of Primary Production, while the MCH service collaborates with the Family Planning Association.

Voluntary organizations are active in Singapore. Religious organizations have institutional accommodation for young orphans, destitute babies, handicapped children, and the aged. The Singapore Association for the Blind takes care of blind children. The Singapore Association for the Deaf and Dumb sponsors the Singapore School for the Deaf. The Singapore Branch of the British Red Cross Society looks after crippled children. There are also hospitals and clinics built by the community with which the health services are in contact.

4.9.5 Reports

Annual reports are submitted by the various sections.

4.9.6 Autonomy in developing local health programmes

District health officers are given discretion in developing their own local health programmes, subject to policy decision at headquarters.

4.9.7 Programmes

Local programmes in the rural districts are an integral part of the overall health programme of the Ministry. The health staff working in the rural areas are regular staff members of the health branch of the Ministry coming from the environmental health and MCH divisions.

4.9.8 Assessment

The health services in the rural areas are rendered by well-trained staff and referrals are made easy by the accessibility to these areas of the health and medical facilities of Singapore.

4.10 Territory of Papua and New Guinea

4.10.1 Title and description of the unit

The health centre constitutes the local health unit which includes smaller units called aid posts. Health centres are under the direct administrative and technical supervision of a regional medical officer who in turn is responsible to the Director of Public Health.

The area covered by a health centre varies but is usually located in a densely populated region, e.g., the health centre at Bena-Bena serves 67 villages with a combined population of 12 000 people.

4.10.2 Functions

The functions of the health centre consist of supervision and direction of the aid posts; disease control (preventive, curative, and other means of control), e.g., domiciliary care of tuberculosis and leprosy patients, follow up of contacts, immunizations (TAB), yaws control; medical care (domiciliary care, hospital referrals, assistance to the aged and sick); environmental health (surveys and sanitary inspection, water supplies, latrines); maternal and child health (pre- and post-natal care, child care, school health); nutrition education (particularly on infants and invalids); and health education of the public.

Services given by the health centres and aid posts are free.

4.10.3 Staffing pattern and duties of staff

The health centre is staffed by an assistant medical officer, an assistant health inspector and a community nurse.

The assistant medical officer has overall charge. He is required to carry out social and family surveys and history recording besides having direct responsibility for supervising and directing operations of aid posts, supervising and directing domiciliary treatment of tuberculosis and leprosy cases and handling mass treatments (e.g., yaws) or preventive campaigns (e.g., TAB immunization).

The assistant health inspector's duties cover environmental health functions of the health centre.

The community nurse takes over duties connected with maternal and child health, nutrition, home visiting, and generally assists in patients receiving medical care.

4.10.4 Working relations with hospitals and clinics

The health centre makes appropriate referrals to general and special hospitals. At the regional level, clinical specialists are available for medical consultations. The regional health inspector also provides technical assistance to the assistant health inspectors. Administrative matters are referred directly to the Regional Medical Officer.

4.10.5 Reports

Monthly reports of all work done are sent to the district medical officer or regional medical officer.

4.10.6 Manual

In place of one, general instructions to the health centres and other peripheral units are issued by the Department of Public Health covering forms of assistance and subsidy available. Day-to-day procedures regarding operation of the health centres are laid down by the regional medical officers.

4.10.7 Building plans and siting

There is no fixed policy as construction depends on available funds. This policy is now being revised with the recent introduction of a standard scheme of assistance by the Government to local councils.

Siting depends on population density and accessibility.

4.10.8 Guidance and supervision of the local health units

Guidance and supervision is received from the regional medical officer, including his technical staff.

4.10.9 Relation of health unit to local governments

None administratively.

4.10.10 Community participation

Community participation is being developed. Local government councils are being involved in the administration of rural health centres.

4.10.11 Autonomy in developing local health programmes

Autonomy in developing local health programmes is limited. It is governed by the amount of autonomy allowed compatible with financial limitation. The policy is determined by the Director of Public Health.

4.10.12 Programmes

Local programmes are developed at higher levels with emphasis on preventive medicine and health education. The regional medical officer and local councils decide on local priorities. Health services are integrated and a referral system is provided.

4.10.13 Assessment

Difficulties of terrain and communications are encountered. The Papuan Medical College is expected increasingly to provide the staffing needs of the local health services. Assurance of continuing metropolitan aid to the health services is giving impetus to programme planning. The increased number of aid posts in recent years has paid off in better village hygiene and better means of disseminating health education to the population. The need is to extend health facilities to outlying areas and to establish health centres in every council area.

4.11 Vietnam

4.11.1 Title and description of the unit

The "Bureau Médical Rural" is the basic unit of the rural health service. It was established by Presidential Decree No. 59 of 25 October 1956. The unit consists of sections for a clinic, 1-3 emergency posts, one small infirmary with usually a maternity ward, and one section for rural health. The rural medical

bureau is under the administrative supervision of the administrative council of the village but is technically under the chief of the district medical service.

Each rural medical bureau has a consultative body called the "Comité de Patronage de Santé Rurale" with 3-8 members and is headed by the chairman of the administrative council of the village and having for ex-officio members the teachers and the chief of the information service of the village.

With the establishment of the "strategic hamlets" in 1962, averaging three per village, the health posts of each rural medical bureau comprise also three in number.

The average population served by the rural medical bureau is 3000 people.

4.11.2 Functions

These are defined in the Presidential Decree which states:

> "Medical help for common ailments, promote and strictly apply rules of hygiene; apply preventive measures; give first aid to patients or people suffering from major injury, prior to their transfer to the district infirmary or provincial hospital; and organize courses for applied hygiene and first aid for the villagers."

Services rendered by the rural medical bureau are free.

4.11.3 Staffing

This consists of a rural nurse assisted by a rural midwife, assistant nurses or first-aid assistants.

4.11.4 Working relations with hospitals and clinics

Referrals are made from the rural medical bureau to the district infirmaries or directly to the provincial hospital.

4.11.5 Reports

These consist of monthly, semi-annual and annual reports; weekly reports on communicable diseases and reports by telegramme are made in case of epidemics.

4.11.6 Manual

This has been prepared and is distributed by the Ministry of Health.

4.11.7 Building plans and siting

The Ministry has prescribed plans for an infirmary-maternité and for a village aid-post.

4.11.8 Guidance and supervision of the local health units

There is a branch in the Ministry for the rural health programme but technical consultations are taken by this branch with the Director-General of Hospitals and Public Health in matters concerning policy and programme. The provincial medical officer is responsible for rural health services in the province and immediate responsibility for supervision is assumed by the chief of the district medical service.

District visiting nurses render periodic visits to the rural medical bureaus and the programmes of the latter must be approved by local authority within the policy established by the Ministry of Health.

4.11.9 Relation of health units to local governments

The local administrative council has administrative direction over the rural medical bureau.

4.11.10 Collaboration with voluntary and official agencies

Collaboration with voluntary and official agencies exists and is promoted.

4.11.11 Community participation

There is not much activity due to the present condition of the country but community participation is made through community development activities, e.g., construction of dispensaries, maternities, etc., through contribution of local labour and materials.

4.11.12 Autonomy in developing local health programmes

This is not much developed yet but local planning can be undertaken with the approval of the Ministry.

4.11.13 Programmes

General policy is developed in the Ministry but the rural medical bureaus develop their own programmes.

The chief of the rural medical bureau determines local priorities with the approval of the village administrative council.

Health programmes are generally prepared in connection with the annual budget. The local health staff plan the programme but it must have the concurrence of the village administrative council. The agreed plan is then forwarded to higher authority for approval.

The rural medical bureau renders integrated health services in the village. Specialized health services are extended to the villages by the central health authority.

4.11.14 Assessment

The present security situation limits local health development; other difficulties include insufficent staff, inadequate training facilities and a small budget. Substantial assistance to the rural health programme is being received from a bilateral agency.

4.12 Western Samoa

4.12.1 Title and description of the unit

The equivalent of a rural health unit in this country is the district hospital which serves an average of about 5000-6000 population. The area served by a district hospital is not necessarily identical to that of a political district as there may be more than one district hospital in the latter. The Health Ordinance of 1959 authorizes the Minister of Health to establish medical services in a district if desirable; this statute is the legal basis for constructing these units in the future.

4.12.2 Functions

The district hospital is concerned with "medical care, including minor surgery, major surgery in emergency cases, clinical medicine, obstetrics, diseases of children, etc. In addition, it deals with preventive measures in the public health field, e.g., water supply, latrines, general health improvement of the district and other matters pertaining to health...."

4.12.3 Staffing pattern

The district hospital is staffed with a Samoan Medical Officer, one staff nurse and one or two district nurses depending on the size of the district.

4.12.4 Working relations with hospitals and clinics

Clinical and public health referrals are made to the Samoan Medical Officer in the district and from him to Apia General Hospital for clinical cases and to the Director of Health and his staff on matters dealing with administration and public health.

4.12.5 Reports

These are rendered regularly to the Director of Health.

4.12.6 Building plans and siting

There is a standard building plan for district hospitals which is being gradually adapted by all units.

4.12.7 Guidance and supervision of the local health units

The Samoan Medical Officer guides his immediate staff on their duties. He receives guidance from the Directorate of Health's staff.

4.12.8 Relation of unit to local government services

The district hospital provides the health and medical services in the area but is administratively and technically responsible to the central health authority. The local authority however assists the district hospital with certain services (building construction and maintenance) and it is the duty of the medical officer to obtain local co-operation and support.

4.12.9 Collaboration with voluntary and official agencies

The district hospital collaborates with the schools in school health work. The Women's Committees are active local voluntary bodies which assist the district hospital in maternal and child health work and first-aid work.

4.12.10 Community participation

This is mainly done through the Women's Committees and assistance in the construction and repair of the district hospitals and quarters for the local health staff.

4.12.11 Autonomy in developing local health programmes

Local programmes are in effect the application of the national health policy developed at higher levels and which receive appropriate guidance from the latter.

4.12.13 Assessment

The local health services are ample in number and distributed; the challenge is for their development so as to ensure a high quality of service being rendered to the general population, including remote rural areas.

APPENDIX 1

GENERAL POPULATION, PERCENTAGE OF RURAL POPULATION AND VITAL STATISTICAL DATA FOR SOME COUNTRIES IN THE WESTERN PACIFIC REGION (1960)

Country or Territory	Population	Percentage Rural Population	Crude Birth Rate (per 1000 pop.)	Crude Death Rate (per 1000 pop.)	Infant Mortality Rate (per 1000 live births)	Maternal Mortality Rate (per 1000 live births)
Fiji	401 018	81	39.95	6.64	36.06	-
Japan	93 418 000	37.5	17.2	7.6	30.7	1.16
Korea	24 994 117	56	35 (1958)	21 (1958)	70	-
Laos	2 600 000	80	-	no record		-
Malaya	6 909 009	59	40.9	9.5	69	2.4
North Borneo	1 490 000 (1962)	80	33.3	9.1	72	-
Philippines	27 288 490	83.8	29.2	7.7	73.1	2.4
Sarawak	744 529	84.9	-	-	-	-
Singapore	1 634 100	37.4	37.8	6.2	34.9	0.4
Territory of Papua and New Guinea	±2 000 000	90	-	-	380	30 per 1000 live and still births
Vietnam	14 068 025	90	29.9	6.91	36.34	-
Western Samoa	114 427	81	31.0	-	-	-

APPENDIX 2

FIVE LEADING CAUSES OF MORTALITY IN SOME COUNTRIES IN THE WESTERN PACIFIC REGION (1960)

Country or Territory	All deaths	Infants
Fiji	Data from 5 main hospitals only. Bronchopneumonia (10.1%); Arteriosclerosis and degenerative heart disease (6.1%); ill-defined diseases peculiar to infancy and immaturity, unqualified (4.7%); tuberculosis respiratory (4.5%); other diseases of the heart (4.2%).	Figures from main hospitals only indicating broncho-pneumonia and gastro-intestinal infections are the leading causes.
Japan	Vascular lesions affecting the central nervous system (36.4%); malignancy (22.4%); heart diseases (unqualified) (16.5%); senility (13.2%); pneumonia and bronchitis (11.2%).	Diseases peculiar to early infancy and immaturity unqualified (47.4%); pneumonia and bronchitis (32.4%); gastro-enteritis (8.9%); congenital malformation (7.2%); birth injuries, post-natal asphyxia and atelectasis (4.1%).
Korea	Not given.	Not given.
Laos	Not classified.	Not classified.
Malaya	Pyrexia of unknown origin (29.67%); senility without mention of psychosis (14.7%); infantile convulsion (9.64%); certain diseases of early infancy (3.09%); violence (2.67%).	Infantile convulsion (32.4%); pyrexia of unknown origin (24.58%); certain diseases of early infancy (10.05%); gastro-intestinal infections, except diarrhoea of new-born (5.64%); pneumonia (3.25%).
North Borneo	Data from 2504 of 4166 registered deaths ("diagnosis" in rural areas usually made by non-medical personnel): "Fever" (22.5%); respiratory infection (22.4%); intestinal infestation (13.5%); tuberculosis (11.8%); accidents (5%).	Respiratory infection (23.88%); intestinal infestation (16.33%); "convulsions" (12.99%); "fever" (9.45%); diseases peculiar to infancy and immaturity (9.04%).

FIVE LEADING CAUSES OF MORTALITY
IN SOME COUNTRIES IN THE WESTERN
PACIFIC REGION (1960) (cont'd)

Country or Territory	All deaths	Infants
Philippines	Pneumonia (12.9%); tuberculosis (12%); gastro-enteritis and colitis (7.9%); broncho-pneumonia and bronchitis (7.5%); beri-beri (7.1%).	Beri-beri (17.2%); pneumonia (16.2%); ill-defined diseases peculiar to infancy (15%); bronchitis (12.3%); gastro-enteritis and colitis (11.11%).
Sarawak	Not given.	Not given.
Singapore	Malignancy (9.47%); pneumonia 8.45%); tuberculosis of respiratory system (5.95%); gastro-intestinal diseases except diarrhoea of newborn (5.28%); vascular lesions affecting the central nervous system (5.16%).	Pneumonia (14.64%); gastro-intestinal infestation except diarrhoea of newborn (14.64%); congenital mal-formation (6.12%); birth injuries, post-natal asphyxia and atelectasis (21.69%); infections of newborn (7.14%).
Territory of Papua and New Guinea	Data from hospitals: Pneumonia (24%); tuberculosis (7.4%); malaria (5.3%); dysentery (4.7%); meningitis (4.7%).	Pneumonia (35.6%); prematurity (8.4%); malaria (7.2%); gastro-intestinal infestation (6.1%); dysentery (5.4%).
Vietnam	Not given (but list of common diseases and infectious diseases given).	Not given (but list of common diseases and infectious diseases given).
Western Samoa	Tuberculosis, pneumonia, gastro-enteritis, infective hepatitis, meningitis.	-

APPENDIX 3

AGE PERCENTAGE DISTRIBUTION
OF POPULATION IN SOME COUNTRIES
IN THE WESTERN PACIFIC REGION
(1960)

Country or Territory	0-19	20-59	60 and over
Fiji	57%	38%	5%
Japan	40%	51%	9%
Korea (1955 figure)	52.3%	42.1%	5.6%
Laos	-	-	-
Malaya	53.6%	41.8%	4.6%
North Borneo	-	-	-
Philippines	47.4%	47.5%	5%
Sarawak	-	-	-
Singapore	50.28%	42.9%	3.8%
Territory of Papua and New Guinea	-	-	-
Vietnam	-	-	-

APPENDIX 4

SALARIES AND ALLOWANCES OF PERSONNEL IN
SOME COUNTRIES IN THE WESTERN PACIFIC REGION

1. Fiji

(a) Divisional Medical Officer:

Senior Medical Officer: £2300 x 75 - £2450
Medical Officer : £1110 x 50 - 1310 x 55 - 1475 x 55 - 1750 x 50 - 1800 x 75 - 2100.

In addition expatriate officers receive an inducement allowance of 25% of their salary paid by the British Treasury.

(b) Locally trained Medical Officers:

Senior	£1210 x 50 - 1310 x 55 - 1475
Grade A	£ 940 x 40 - 1060 x 50 - 1160
Grade B	£ 615 x 30 - 825 x 35 - 860

(c) Health Sisters:

£843 - 896 - 939 - 997

plus compensative allowance	£ 55	Free quarters
living out allowance	£157	Free initial
uniform allowance	£ 54	Issue of uniforms

(d) Nurses:

Charge Nurses	£320 x 20 - 400 x 25 - 425
Staff Nurse	£320 x 20 - 360
Nurse	£224 x 12 - 260 x 20 - 300

Free uniforms.

(e) Health Inspectors: £735 x 35 - 770 x 30 - 860 x 40 - 940
Expatriates receive the 25% inducement allowance.

(f) Assistant Health Inspectors:

Senior	£560 x 25 - 585 x 30 - 615 x 30 - 735
Others	£168 x 12 - 180 x 20 - 300 x 20 - 400 x 25 - 525.

Free uniforms.

Quarters are provided for all expatriate officers and for local staff stationed at rural hospitals and dispensaries. Quarters for other staff depends on their availability. European type quarters are paid for at the rate of 10% of the officers' salary, up to £1200 and then 3% of the remainder. Quarters built of native type materials are provided rent free.

A subsistence allowance is usually paid to health personnel whilst travelling on duty. The following rates are applicable:

Officers on £1530 or over per annum	£1. 7. 6 per day
Officers on £ 770 or over per annum	£1. 0. 0 per day
Officers on £ 360 or over per annum	15. 0 per day
Officers on £ 168 or over per annum	10. 0 per day.

A mileage allowance depending on the size of car or motor bicycle is paid to authorised officers if using their own vehicle for the performance of their duties. A horse allowance of £25 per annum for one horse or £40 per annum for two horses is paid to authorised officer.

2. Japan

Salary range by category of health personnel (1961)

Health personnel (Health Centre)	Annual Salary per person Yen	Health personnel	Annual Salary per person Yen
Physician	576 682	Laboratory Technician	286 558
Dentist	537 120	Sanitary or Public Health Engineer	305 348
Pharmacist	384 400	Health Statistician	281 550
Veterinarian	425 012	Health Educator	383 390
Public-Health Nurse	280 550	Medical Social Worker	380 156
Mid-wife	276 686	C.D. Control	306 636
Clinical-nurse	257 228	T.B. Control	279 216
Nutritionist	227 898	Clerk	315 830
Dental Hygienist	212 038	Card-keeper	235 508
X-ray Technician	280 278	Eugenics and Maternal	346 550
		Clerk (general affairs)	319 870
		T O T A L	321 288

Hardship allowances and privileges - none.

3. Korea

Personnel: salary range by category of health personnel; hardship allowances and privileges, if any; quarters provision for health personnel; regulations pertaining to full-time service or part-time service with limited private practice of professional staff (e.g., doctors and nurses).

(a) The Health Centre has four categories of health personnel such as Doctor, Nurse (public health), Sanitarian, and Technician. All personnel renders full-time service.

The salary range by category of health personnel: Doctor's pay is about HW20 000 ($150), Nurse's pay is about HW5000 ($40) and Technician's pay is about HW4000 ($30).

(b) Public doctor's pay is about HW10 000 ($60) and compulsory full-time service for 2 years.

Equipment and supplies: sources (central, intermediate, local, external, e.g., international or bilateral agencies).

Equipment and supplies are only allocated by the central government (Ministry of Health and Social Affairs).

4. Malaya

	C.O.L.A.	MONTHLY SALARY
Medical and Health Officer	$ 40.00(S) 180.00(M)	$730.00
Dental Officer	40.00(S) 180.00(M)	730.00
Public Health Nurse	61.60	301.00
Hospital Assistant	39.50	238.00
Staff Health Nurse	56.00	277.00
Dental Nurse	56.00	277.00
Public Health Inspector	39.50	238.00
Dispenser	19.75	137.50
Clerk	19.75	137.50
Public Health Overseer	9.60	94.00
Assistant Health Nurse	19.75	137.50
Rural Midwife	19.75	137.50

	C.O.L.A.	MONTHLY SALARY
Attendant	$ 7.20	$ 73.00
Dental Attendant	7.20	73.00
Public Health Labourer (daily pay)	0.28	2.72
Driver (daily pay)	0.28	3.10
Gardener (daily pay)	0.28	2.72

Quarters are provided for all the staff of a Rural Health Unit. There is no hardship allowances and privileges. Medical Officers and nurses who have passed the course in Public Health are given two increments.

5. North Borneo

Salary Range

Physicians	M$930 - M$1420 p.m.
Hosp. Assts.) and Nurses)	M$390 - M$ 620 p.m.
Supervisory health visitors	M$725 - M$ 825
Health Nurses	M$390 - M$ 470 +
Health Inspector	M$290 - M$ 620
Rural Health Nurses	M$125 - M$ 200
Male Village Health Workers	M$125 - M$ 210

Allowances: Subsistence and Hardship Subsistence.
Ranging $3 - $8 per night salary
Camping $2 - $4 per night salary.

6. Philippines

Position	Salary Range	Salary Per Year	Travel Allowances Per Month
1. Municipal Health Officer:			
a) With transportation (jeep)	42	₱4632.00	₱15.00 for subsis-sistence; ₱60.00 for maintenance of transport.
b) Without transport	42	₱4632.00	₱30.00
2. Public Health Nurse	32	₱2808.00	₱25.00
3. Midwives	28	₱2304.00	₱20.00
4. Sanitary Inspectors	26	₱2088.00	₱15.00

There are no hardship allowances and quarters provisions. Privileges include vacation, sick and maternity leave with pay. Personnel are on full-time basis - no private practice.

7. Singapore

Personal Emoluments for the 3 District Health Units

	$
Division I	
Health Officers, three ($820-35A - 1030/Bar/1100-40A - 1420)	43 360
Division II	
Executive Officer (225-15A-255/Bar/295-15A-385/Bar/425-20A-505/Bar/555-25A-655)	2 820
Senior Public Health Inspectors, three ($690-30A-930)	24 840
Senior Cleansing Inspectors, three ($520-20A-600)	21 240
Public Health Inspectors, fourteen ($225-15A-255/Bar/295-15A-385/Bar/425-20A-505/Bar/555-25A-655); Public Health Inspectors in Training, eight ($152-8A-168)	82 590
Division III	
Higher Clerical Officer ($535-20A-635)	7 040
General Clerical Officers, thirteen; Men ($152-8A-168/Bar/220-15A-325/Bar/340-15A-475); Women ($137-8A-153/Bar/190-15A-280/Bar/295-15A-385)	40 440
Cleansing Inspectors, nine ($152.50-7.50A-167.50/Bar/190-7.50A-220/Bar/235-15A-355/Bar/370-15A-445)	19 780
General Clerical Assistants, five; Men ($130-8A-154/Bar/170-10A-250/Bar/260-10A-330); Women ($122-8A-146/Bar/160-10A-210/Bar/220-10A-270)	16 310
Technical Sub-ordinates, thirty; Superscale, one ($485-20A-565); Special Grade, four ($370-15A-445); Timescale, twenty-five ($110-5A-120/Bar/137.50-7.50A-197.50/Bar/220-15A-325)	93 520
Storekeeper ($137.50-7.50A-212.50/Bar/227.50-7.50A-250-15A-295/Bar/310-15A-325)	2 070
Draftsman ($212.50-7.50A-295)	3 360
Market Inspector ($212.50-7.50A-295)	3 360
Assistant Hawkers Inspectors, four ($196-8A-252)	9 410
Market Overseers, six ($196-8A-252)	14 120
Piggery Overseers, four ($196-8A-252)	9 410

Division IV	$
Typists, three ($154-6A-196/Bar/204-8A-236)	5 930
Watchmen, Grade II, three ($93-2A-101)	3 640
Messenger, one ($93-2A-101); Office Boys, two ($87-2A-95)	3 270
Allowances	
Professional Allowance	8 100
Standstill Allowance	120
Variable Allowance	48 520
T O T A L :	$463 250

8. Territory of Papua and New Guinea

Assistant Medical Officer	A£ 968 - 1518
Assistant Health Inspector	200 - 680
Nurse	200 - 580

Conditions of service governed by Public Service and Retirement Benefits Ordinances. Private practitioners take no part in the organization or activities of a Health Centre.

9. Vietnam

The expenses of the Bureau of Medical Rural are entirely covered by the local budget.

Voluntary agencies or groups send from time to time gifts in kind (clothing, milk, sweets, toilet requisites) for indigent patients; the importance of these gifts is difficult to assess, but nevertheless, it is not considerable.

Salary of staff:

1 rural nurse	VN$ 1500 x 12 = 18 000
1 rural midwife	do.
3 assistant rural nurses or first-aid assistants	600x3x12 = 21 600
TOTAL:	57 600

ANNEX III

ROLE OF COMMUNITY DEVELOPMENT IN THE DEVELOPMENT OF RURAL HEALTH SERVICES

by

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PART I

RURAL COMMUNITY DEVELOPMENT IN THE REGION

1. COMMUNITY DEVELOPMENT AS PART OF A TOTAL CO-ORDINATED RURAL DEVELOPMENT PROGRAMME

Increasingly, over the last decades, rural development has been recognized as an integrated process, being the sum total of many subject-matter development programmes, all aiming at the well-being of rural people. Besides the traditional subjects of agriculture, animal husbandry, health, sanitation, cottage industries, co-operatives, education, adult literacy, rural roads and communications, irrigation, etc., increasing attention is now being paid to more sophisticated fields, like community organization development, rural housing, land reforms (in the broader sense), home economics, home management, land and farm management, youth work, cultural and recreational work, social welfare, child and family care, adult education and, above all, local self-government. Since the majority of the countries of this region are predominantly rural, the socio-economic problems of rural development have tended to commend increasing importance and attention of newly independent governments in their national long-term development planning.

It is clearly not feasible to encompass such a vast array of subjects or area of population within a single concerted programme of action, either at the country or the regional levels. Many of these subject-matter activities fall primarily within the terms of reference of different Specialized Agencies or organizations. Notwithstanding, the problem of rural development is the problem of developing rural people living within self-contained rural communities and each of these millions of communities, is an organic socio-economic entity, with an individual and independent identity.

Its several problems therefore need to be tackled as a whole, on such basis as may evoke the maximum participation and acceptance from the communities and result in an optimum input-output ratio, in relation to the investment of scarce governmental resources. That being the situation, a co-ordinated and integrated planning for rural development, at every level (regional, country, provincial, district and village) seems to be an inescapable requirement, subject to the implicit undertaking that all subject-matter specialized agencies/departments of government concerned with such joint planning of a concerted programme, would each implement its own part of the programme only as a part of the total plan. This would involve the subverting of traditional departmental affiliations to a

larger and more human objective and would call for co-ordinated international, regional, national and departmental policies for rural development, as also the creation of appropriate administrative mechanism at every level, to harmonize the day-to-day collaboration.

In recognition of this problem, Resolution 840 (XXXII) of the Economic and Social Council expressed the hope, that the Administrative Council on Co-ordination would "continue to work towards the fullest possible integration of activities in the field of rural development". It further called upon the United Nations and its Specialized Agencies to "consider the possibility of extending regional training and research programmes on rural development, by establishing courses, seminars and regional institutes in these fields, with a view to raising the standards of living of rural population". As one result of these efforts, the ACC Working Group on Community Development recently changed its designation to the "ACC Working Group on Rural and Community Development", and thus broadened its terms of reference, so as to enable it to consider rural development programmes and projects of the United Nations and Specialized Agencies in a larger context. The opportunity provided to the ECAFE to present this paper, is another manifestation of the same earnest desire of the United Nations and its Specialized Agencies to co-ordinate their efforts in this direction, with the view to achieving maximum impact on rural development. This paper accordingly attempts to lay out some possible avenues for co-ordination insofar as the field of rural health and sanitation is concerned, against the backdrop of the community development (CD) programmes in the countries of this region. If as a result of discussion, some definite suggestions or solutions for co-ordination emanate, then to that extent a great step forward will have been taken in tackling this immense, vital, elusive and intricate problem of the region.

2. GENESIS OF COMMUNITY DEVELOPMENT

2.1 Historical

To understand the community development programmes (CDP's) in this region, we could perhaps do well to go back a little into recent history and recount some basic problems as they appeared in the region within the last two decades. With a fair amount of uniformity, a number of colonies of the region achieved the status of independent nations. Poverty, disease, hunger, apathy and ignorance have been the legacy of their rural communities. Their administrations had been geared to the maintenance of law and order and collection of taxes, but not to the welfare of people. People had unostensibly but surely become completely dependent on the administration even for solving their day-to-day problems. Their traditional way of community life, of co-operative self-help and self-government, had degenerated and was replaced by local factionism and an attitude of fatalism and hopelessness. Rural areas were predominantly producers of primary products, methods of production were archaic and inefficient. The process of industrialization had not yet started and approximately 85 per cent of the total population continued to inhabit

isolated rural areas. Land available for cultivation, in proportion to the people living off the land, was fast shrinking, thereby increasing pressure on land and creating unemployment or underemployment. Organizations of people were not in existence. Traditional organizations had been destroyed through active discouragement. People had no confidence in the government and the government had no faith in the people. There was no flow of information or channel of communication between them. Technical services of the government were very meagre and rarely touched the village. Their function was statistical reporting rather than extension. Approach to village problems conformed to departmental compartmentalism. Villages had failed to be attractive places to live in, especially for the educated and well-off classes. Those who could, left the villages for the more glamorous life and larger employment opportunities in the cities. This further deteriorated the condition within villages.

2.2 Problems of independence

With achievement of independence, governments of the region became keen to give a meaning to this hard-fought independence, in a manner which was readily understandable by the people. It was necessary to show that independence did not merely provide a change of masters but catered to the socio-economic well-being of the people. But the basic handicap of all governments was the shortage of material resources and trained personnel. Natural resources were in some cases abundant but inadequately developed. A beginning therefore had to be made with what assets were readily available and mainly it was the immense amount of unharnessed manpower. The administrative system was weak and there were few trained administrators available. The system required heavy orientation in welfare work. The psychology and methods of working with the people had to be developed, rather than of governing them from above. Traditional water-tight, vertically operating technical departments, each with very limited financial and personnel resources, required to be so co-ordinated and extended down to the village level, as to make them more effective and efficient in relation to the input-output ratio. The socio-economic problems of the village community were required to be handled as an organic whole, and not in the departmentalized fashion, conforming to technical departments of the government. Channels of communication between the government and the people required to be opened up, so that a two-way flow of information could be established aimed at providing mutual understanding, appreciation, confidence and active participation of the people in governmental plans and programmes like two partners having the common objective of developing the nation. To this effort, the enormous unemployed manpower was required to be voluntarily geared. Small rural communities were required to be so resuscitated, that villages could become small independent units of socio-economic self-development geared to the national development. That

would necessitate wide-scale use of trained lay leadership, local initiative and local resources. That would free the hands of government for undertaking larger national projects and problems. But before such responsibility and corresponding power could be "democratically decentralized" and passed on to the people, it was necessary to have people undergo a period of informal self-training in local community development. Community development is a slow process. There are no short cuts to "learning by doing it" or to the process of actual trial and error and of working through the formation of popular democratically operating institutions, having full support of the government and the community at large. With an eye to future industrial and economic development of the country, it was necessary to ensure adequate social growth of the people, lest the nation's growth become lopsided.

2.3 The programme

These compréhensive problems and needs of the newly independent nations, it seemed, could best be met by using the techniques and employing the processes which have now come to be known as "community development." This is the process of organizing individuals into cohesive social groups, providing them with competence and ability to determine, plan and solve their own problems, harnessing their local resources and ingenuity to that process, and supplementing assistance from the government only to such extent as local community resources do not permit. Basically this is an educational process aimed at helping people to help themselves individually and collectively and thus developing the nation socially, economically, culturally and politically.

2.4 Definition

The general accepted definition of community development, as spelt out by the United Nations family is as follows:

> "The term 'community development' has come into international usage to connote the processes by which the efforts of the people themselves are united with those of governmental authorities to improve the economic, social and cultural conditions of communities, to integrate these communities into the life of the nation, and to enable them to contribute fully to national progress.
>
> "This complex of processes is then made up of two essential elements: the participation of the people themselves in efforts to improve their level of living with as much reliance as possible on their own initiative; and the provision of technical and other services in ways in which encourage initiative, self-help and mutual help and make these more effective. It is expressed in programmes designed to achieve a wide variety of specific improvements."[1]

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[1] United Nations Document E/CN3

Some other better known definitions are:

"The Community Development process is, in essence, a planned and organized effort to assist individuals to acquire the attitudes, skills and concepts required for their democratic participation in the effective solution of as wide a range of community improvement problems as possible in an order of priority determined by their increasing level of competence. The degree to which citizen responsibility, initiative and democratic action results will be a function of how well these understandings are acquired."[1]

"Community Development is not a method of doing economic development on the cheap and success cannot be measured by adding up the material projects completed. They are but a means to a social and political end. The chief end of successful community development is not wells, roads, schools an and new crops. It is stable, self-reliant communities, with an assured sense of social and political responsibility."[2]

The variations of community development programmes even within the region are very considerable. But that is the natural manifestation of the fact that CDP's are a composite reflection of each country's individual, social, political, administrative, economic, historical, geographical, anthropological, cultural, educational and developmental milieu. That community development programmes still continue to move basically in one common direction, only goes to prove the dynamism of this process.

2.5 Objectives

Correspondingly, therefore, the objectives of the programme also vary in each country. Generally, however, the objectives will border upon the following:

"(a) to raise rapidly the productive output and real income of the villager by bringing to him the help of modern techniques of farming,

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[1] Mezirow, J.D. (1959) Community development as an educational process (United States Operations Mission to Pakistan, unpublished document).

[2] British Colonial Office, Hartwell House Conference, Community development handbook, London, Her Majesty's Stationery Office.

sanitation and health co-operatives, cottage industries, etc.;

"(b) to multiply the community services available in rural areas such as schools, dispensaries, health centres, hospitals, sources of pure water supply, etc., thereby increasing the national assets;

"(c) to create a spirit of self-help, initiative, leadership and co-operation among the villagers which may become the foundation of an independent, healthy and self-perpetuating economic, political, civic and social progress;

"(d) to create conditions for a richer and higher life through social activities, including recreational facilities, both for men and women;

"(e) to co-ordinate the working of the different departments of the Government and to extend their activities into the villages by providing an extension service to the country;

"(f) to give a welfare bias to the entire administrative structure of the Government."[1]

The broader objective, however, is to build as quickly as possible, a national socio-economic infra-structure, of a type and scale which is considered basically minimal in order to base thereon, the future self-perpetuating growth of the country both socially and economically. In effect, therefore, community development provides an effective bridge between the under-developed "cartwheel" socio-economy of the region and the projected "jet age" growth and development of a modern, strong, independent and self-reliant nation.

2.6 Types of community development programmes

The community development programmes can broadly be classified into three types:

2.6.1 Integrative type. This type of programme is designed to be country-wide in scope, emphasizes development, and the co-ordination of technical services, and may involve in the early years substantial changes in the administrative organization and functioning of government. It has a readily identifiable organization which is designed to marshall and co-ordinate at each level the efforts of

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[1] Pakistan, Village Aid Administration of the Ministry of Economic Affairs, Village Aid, Five-Year Plan, 1955-1960.

governmental and non-governmental agencies which can make a contribution to community development. In some cases, new administrative areas are created within the traditional ones in order to co-ordinate technical services at a point closer to the people. Substantial technical and financial resources are channeled through this organization to achieve centrally planned development goals.

2.6.2 Adaptive type. This type of programme is country-wide in scope, places emphasis on community organization and self-help, and involves little change in administrative organization of government. It is designed primarily to stimulate self-help community effort toward locally-determined goals and to attract the support of the technical departments thereto. Programmes of this type will be referred to as the adaptive type because they can be attached to almost any department and otherwise adapted to the prevailing administrative organization of government.

2.6.3 Project type. This type of programme is multi- functional but limited in geographic scope to certain parts of a country and usually emphasizes development."[1]

Broadly in the Asian countries, we find the integrative type of programme. Whatever the type, the programme will depend heavily on finding, training and utilizing lay leadership, on promoting popular institutions at the community level, on working through such institutions and groups and on emphasizing self-help activity.

2.7 The front-line community development worker and his multi-purpose extension funtions.

Some of the major CDP's of the region have trained and utilized as the front-line CD pracitioner a Multi-Purpose Village Worker (MPVW). This paid official of the government has several functions, but mainly he is trained to be a motivator of the people, who continuingly lives within the village and works with the people. He germinates in them the aspirations for a better life, shows them the avenues for achieving such a life by their own individual and joint efforts, forms them into co-operative, democratically operating, informal representative groups, guides them to the ways and means of undertaking, planning and implementing local self-help projects and in that process makes himself into a two-way operating channel of communication, which on the one hand makes available to the people the co-ordinated departmental services and supplies of the government and on the other hand conveys to the appropriate government departments, the needs and aspirations of the village communities. In most countries of this region, as of now, technical

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[1] United Nations, Office of Public Administration (1959) Public administration aspects of community development programmes, (Document ST/TAO/M/14, para. 16).

services are not sufficiently organized to reach down to the village level, mainly because of want of adequate resources and trained personnel. Generally, therefore, they reach only the district or sub-district levels, and it is frequently noticed that this single subject-matter technician, is expected to serve a group of 200-300 villages. This has made it impossible for the technician to come into any direct contact with the people in the villages, and the people have therefore not gained from such services. The MPVW can however act as the common extension arm for all these departmental services, between the sub-district levels and the villages. He thus becomes the channel for co-ordinating and extending government services. To be able to do so successfully, he is trained in the basic and elementary skills of each departmental service, just sufficiently to act as a "first-aider," and to supply such services or transmit such skills directly to the village community, on an "as required" basis. Thus apart from his basic training in human dynamics and group-work, he is trained in the very basic skills and theory of all rural development departments viz., agriculture, animal husbandry, irrigation, small public works, co-operatives, education and literacy, health and sanitation, cottage industries, housing, etc. The women village workers get a greater emphasis of training in home economics, maternal and child care, family planning, environmental sanitation, cooking and dietetics, home improvement, etc. In both cases the test for successful learning is based on the ability to demonstrate those skills to villagers. But wherever the community's capacity is sufficiently developed, so as to require more advanced services, the MPVW assists the departmental technician to operate more directly and efficiently, through well-organized and receptive popular groups which the MPVW can successfully mobilize.

It would seem, that the success of this multi-purpose extension operation would bear a direct ratio to the extent of technical back-stopping of services and supplies which the department can provide to the MPVW at the sub-district level. Therefore, at that level, the CD Officer (CDO), who is the supervisory official of the MPVW and often the development adviser to the district officer, is required to act as the (programming) captain of the team consisting of officers of the technical departments, under the administrative control of the district officer.

2.8 Technical departments' backstopping of the multi-purpose village worker

Much has been said, for and against, this multi-purpose extension approach. Generally it is argued that one official of the government at such a low level cannot conceivably become an expert in the composite skills of all technical services. There is a great deal of truth in this, but at the same time, looking to the fact that the total developmental resources of the government are very small, that trained technicians are very scarce, and that any expansion of technical services sufficiently to reach the

village level would take several decades, it would seem that the multi-purpose co-ordinated extension approach provides the only practical and economical interim approach. At a stage where the government is able to place specific departmental specialists directly at the village level, the MPVW's functions in the direction of such subject-matter work, must correspondingly become redundant. But till such time, he must continue to serve as a stop-gap or interim technician. To that extent, he has indeed a very difficult job to perform and needs the full support and sympathy of the technical departments. The departments should in turn feel happy to avail of such ready-made, trained, cost-free extension service, and to the extent that they may consider the MPVW's training inadequate for extension purposes, they should, through the process of in-service field-level training, correspondingly increase the competence of the MPVW. It should be continuingly borne in mind, that the MPVW after all operates with the village communities, at a level which is technically speaking so low, that any departmental techniques and skills which are easy enough to be taught to and adopted by the uneducated farmer or villager, are certainly good enough to be acquired and in turn taught by the MPVW, who is generally of the high-school standard of education. It may be of some interest, as an example, to note, that operating on this basis, the Village Agricultural and Industrial Development Programme in Pakistan, was able to report inter alia, the following impressive results in the field of health and sanitation.[1]

Improved latrines brought into use	:	54 435;
Soakage pits dug	:	22 592;
Drains constructed	:	1.2 million yards;
Improved wells dug	:	12 110;
Improved tanks	:	2 660;
Hand pumps installed	:	5 304;
Wells remodelled	:	13 432;
Drainage pits filled	:	66 666;
Persons inoculated	:	7.2 million;
Persons vaccinated or revaccinated	:	5.8 million;
Persons treated first aid	:	468 629;
Houses sprayed or resprayed	:	1 million;
Dispensaries started	:	326;
First aid centres started	:	1 048;
Maternity and child welfare centres started	:	46;
"Dai's" sent for training	:	261;
Demonstrations held	:	21 790;

(Total villages under operation - 47 714: population - 26 million
Average period of operation - 3 years: Total Village
Contribution in all fields - $6.6 million)

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[1] Pakistan, Programme Analysis Unit, Ministry of National Reconstruction (1961) Physical achievements of national development areas in Pakistan up to 31 March 1961.

2.9 Community development promotes democratic maturity

Thus CD techniques and processes help to educate and train people into forming self-helping, democratically operating, popular organizations which are able to look after their day-to-day needs and requirements with appropriate amount of assistance from the government. With such dynamic growth in people's competence, a stage is reached, when this competence and voluntary dynamism could well be formalized and thus perpetuated by governmental action, through the formation of statutory institutions of people like the co-operatives (for future economic growth) and local-governments, (for futuro social and political growth). Thus, the strengthening of the broad rural base and its active participation in the nation's development as also the opening up of channels of communication between this base and the top-levels of government, can conceivably provide to the governments themselves, an extent of stability and popular support, not known in the past.

PART II

COMMUNITY DEVELOPMENT AND RURAL HEALTH SERVICES IN THE REGION

1. INTRODUCTION

We have described in Part I the rural community development programmes as obtaining in this region, in order to serve as a backdrop for developing discussions, in relation to the objective of this paper, i.e., the role that community development can play in developing rural health services (RHS).

We shall therefore now proceed with synthesising rural community development; assessing and analyzing the problems and needs of rural health as we see them in this region; determine common ground between the two; then try to gauge the technical content of such RHS programmes and the extent of professional training necessary for implementing them; thus suggest the extent to which the non-technical rural health jobs can be effectively and economically handled within the community development framework in order to produce optimum results with minimal resources; and finally we shall broadly spell out the organizational structure and modus operandi for such support to the RHS as may enable the latter to attain quick coverage of the total rural areas of Asia, within the limited resources available to them.

2. COMMUNITY DEVELOPMENT SYNTHESIS

We have seen, that in synthesis, community development processes reject any imposition on people from above, because such feudal or colonial methods do not produce lasting changes in the attitudes and practices of conservative rural communities. In fact, under such imposed conditions, though prima facie results seem to be achieved rapidly, experience has shown that people revert back to their traditional attitudes as soon as the authoritarian presence is removed. We have learnt, that the community development methods of voluntary and democratic participation by people, in programme-planning and implementation of self-help projects, through representative groups of their leaders, not only musters the dormant village resources in men and material in furtherance of such projects, but also sustains the change in attitudes and practices as a self-perpetuating process; that projects so undertaken are viewed by the people as their own projects-not those of a foreign government, and therefore they are more readily maintained and looked after as their own responsibility; that this is an aided self-help programme only in as far as government assists with material, technical or financial resources which are beyond

the means of the local community and that this process builds up a partnership of mutual confidence between the people and the government; that CD is a method of working with the people and not for them and for such purpose the multi-purpose village worker (MPVW) is not endowed with any enforcing or regulatory powers, but only with the skills of demonstration and persuasion which enable him to work, through organized groups of men, women and youth; and that CD is mainly an educational process which assists people to help themselves by determining, planning and achieving their own goals. We will have inferred, that as trained men and women MPVW's become available, they are posted in compact areas of contiguous villages called CD Blocks or Development Areas, and their efforts so concentrated, as to have one worker operate, continuingly over a long period of time, within his circle of 5/7 villages, under the administrative control of a CD Block Officer or Development Officer (DO) and under the subject-matter technical supervision of the departmental specialist at the sub-district level, for whom he acts as the extension agent. As more developmental areas (DA's) come into existence, larger rural territorial coverage is achieved. Thus the limited technical services (and in some cases supplies) which otherwise did not reach the village at all or were ineffectually dispersed without any concentration or supervision, are now co-ordinated and systematically extended into the villages, through the framework of CD.

3. SYNTHESIS OF THE MULTI-PURPOSE VILLAGE WORKER VIS-A-VIS THE DEPARTMENTAL SPECIALIST

".....Where CD workers are called multi-purpose extension workers, there is a special danger of role confusion. Practical experience and experimental evidence both strongly support the contention that the effective village worker must be a CD practitioner. .....The CD Plan provides these CD workers with the support of highly trained specialist in smaller corps, representing the various Nation Building Department at the development area or block level. These technicians are the principal extension agents of their respective departments.

"The CD worker's function is to enhance the effectiveness of the extension specialist by: (1) helping villagers identify the need for the technician's help; (2) preparing them to make the best use of the technician's visits and apply his recommendations; (3) keeping the technician informed on the villagers' readiness to act, which will permit the formulation of more realistic departmental targets and more productive extension efforts; (4) identifying problems which require special extension information or professional attention by the technician; (5) helping villagers solve the less-demanding problems with a minimum of help from the technician; (6) helping villagers solve their top priority problems which are outside the technician's field of competence, thereby paving the way for their more effective participation in projects he feels are important; and (7) involving villagers in self-help projects which generate opportunities for the technician's guidance.

"The CD worker with his first-aid competence in the several technical fields cannot usurp legitimate extension jobs of the technically trained specialist, nor can the technician fulfil the CD function in the village. The CD Programme provides for a mutually beneficient partnership between extension and CD which gives the greatest promise of success for aided self-help in the villages ..... The advantage of CD as an approach to helping villagers acquire the knowledge and motivation for self-help has been established by some fifty countries and territories all over the world. The Allahbad experiment lends objective evidence to CD's speed and effectiveness in terms of securing villager adoption of new ... practices ... The Programme is an integrated approach means a saving of scores of rupees which would otherwise have to be invested by each Department to train, equip and administer thousands of field people, all of whom would be vying for the attention and co-operation of the villager ..... In this way the outlay per project is much smaller than if the approach had been by any other method."[1]

Whereas a majority of Asian countries like Cambodia, India, Pakistan, the Philippines, Thailand, Republic of Viet-Nam, etc. are proceeding on the basis of such front-line MPVW's, some other countries, notably China (Taiwan), Ceylon, etc. operate similar CD programmes through statutory organizations of people, like the Farmers' Associations and the Rural Development Societies. In fact, more recently emphasis in some countries of the region is progressing towards making CD the specific long-term responsibility of local self-government bodies, for whom the MPVW acts as a secretary cum development adviser, and assists in obtaining, as required, technical services and supplies which are then co-ordinated and channelled to the people through these organizations.

4. RURAL HEALTH SERVICES DEFINED

"Health - defined as a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity - is a basic component of the standard of living and is therefore a fundamental requirement for community development.

"In general, health services are designed to meet the health needs of an area, taking into consideration the social and economic conditions of the area concerned and they are rendered by means of close co-operation between health workers and the people. Experience has shown that this close co-operation can be achieved only if health services are properly integrated and decentralized, so that they provide front-line services..."

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[1] United States Agency for International Development (1962) Community development, training material, Washington, D.C. (Series A, 5, 9).

"All types of basic community services require the sympathetic support and active participation of the people. To achieve this, a programme of health education to help people attain health by their own actions and efforts is essential ... to recognize the major health problems of their community, to learn the ways and means of organizing their efforts to solve these problems, and to make full use of the health services .... The success of any programme for health improvement ..... depends on the understanding and co-operation of the people..... Plans for the education necessary to ensure this understanding and participation should be incorporated in health programmes."[1]

5. ANALYSIS OF RURAL HEALTH NEEDS AND PROGRAMMES

A broad analysis of the rural problems and needs of this region in the field of health and sanitation would perhaps bring out, inter alia, the following action programmes as a composite health service requirement.

5.1 Education, extension and dissemination

(1) Penetrate the traditional wall of superstition, ignorance, indifference and apathy towards preventive and curative measures; allay the fear of the doctor and his medicine vis-à-vis the local quack.

(2) Get organized groups of people to witness and participate in demonstrations in modern scientific practices and guide their discussions in these matters towards greater general enlightenment, e.g. purifying of drinking water, ventilation of houses, inocculation of humans, segregation of animals from living quarters, vegetable and fruit growing and cooking, etc.

(3) Get such groups to plan and implement small local sanitary projects of a communal nature, including contribution of land, material labour for constructions.

(4) Take health educational classes and distribute health literature, e.g. care, preservation and cooking of food, dietics and nutrition, family planning, child and maternal care, hygiene, environmental sanitation, etc.

5.2 Surveys and supervision

(1) Village health surveys, statistics, data gathering and reporting (including births and deaths registration).

(2) Day-to-day supervision and reporting of all health and sanitation activities in the villages.

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[1] United Nations Department of Economic and Social Affairs (1960) Community development and related services, New York.

5.3 Sanitary activities

(1) Housing, home improvement, ventilation, cleanliness, etc.

(2) Sanitary engineering (wells for pure water, disposal of garbage, drains for filthy water, disposal of night soil, hygienic latrines).

5.4 Preventive activities

(1) Anti-malaria (spraying of houses and ponds, cleaning of dirty ponds).

(2) Mass inoculations or medications (smallpox, paludrin, etc.) against communicable diseases.

(3) First aid and preventive treatments (small wounds, snake bites, iodine, quinine, etc.).

(4) Maternal and child care, family planning practices, etc.

(5) Pre-natal through anti-natal hygiene (including the use of trained local "Dai's" or midwives).

5.5 Curative activities

(1) Diagnosis and treatment of general ailments and diseases.

(2) Supply and administration of medications, drugs, vaccines, injections, etc. through rural health units and village dispensaries.

(3) Clinical and surgical treatment and hospitalization.

(4) Control and cure of mass diseases (yaws, tuberculosis, trachoma, cholera, leprosy).

(5) Training and support of village dispensers where RHS cannot reach into village.

6. SIZE OF TOTAL RURAL HEALTH PROBLEM

6.1 Problems

While having no pretentions to showing this as a complete list of the totum of health problems in rural areas, or even to assuming that the above groupings are technically water-tight, let us now proceed to examine these problems hypothetically but more critically. Initially, it must be

reiterated, very categorically, that the ultimate responsibility for providing all rural health services must be that of the health department. Secondly, we may ruminate upon the potential size of the total rural health programme, if all the above health and sanitation activities must take place in each and every village of the rural areas of the (ECAFE) region. These villages constitute a large bulk of the mass of this region's population. Here, some 620 million people, living in 1.2 million villages and many, many more small hamlets, spread over vast and sometimes inaccessible terrain, need these services. But the health budgets of the regional governments, including the urban areas bear a proportion to the total gross national product (GNP) which varies between 0.2% in the Republic of Korea to 0.9% in Burma. The proportion that this expenditure bears to national budgets, varies from 1% in the Republic of Korea to 4.7% in the Republic of Viet-Nam, with two exceptions vis.....the Philippines (6.7%) and Singapore (14.3%). (See appendix) The dearth of graduate-level or even diploma-trained health practitioners is so obviously acute and rural conditions are so unattractive and unremunerative, that despite conscription in some cases, no graduates are available at sub-district levels. Considering the increasing pressures on budgetary funds from the rapidly growing and more voracious competing departments like agriculture and industry, the prospects of any considerably increased resources for expanding rural health training institutions or for extending health services quickly, would indeed seem remote. What then is the answer?

6.2 A possible solution

To our uninhibited way of thinking, the answer would seem, to be in examining the above "job description" of the rural health services a little more radically and critically, in order to determine whether there are not some areas of activity which could be classified as "de-technicalized" functions - such a "generalist" or quasi-technician may be able to assume, with a short, quick course of training and albeit under the field-level supervision of the trained technician, but without any significant loss in the end results. Indeed, the current educational, social and economic standards of rural people in this region are at such low levels, that even their capacity to accept or absorb the modernized forms of educational, clinical, preventive or curative practices would seem to suffer under strict limitations, handicapped as they are, by the traditional ignorance and superstitions. Perhaps in such circumstances, any attempt at a quick 100 per cent coverage of rural areas, with direct, full-fledged, rural health services may even to some extent, appear unjustified, because judged by their end-result, they may still appear to lack an adequate impact- or acceptance, unless preceded by a sufficiently extensive educational drive, which could prepare people adequately, to want to change, and to break with the traditional impervious "wall of indifference."

6.3 Sharing of the task

To an objective analyst, it would therefore seem that the front-like male or female MPW of a matriculate or school-leaving standard, could

conceivably assume responsibility for some of these "de-technicalized" functions, more especially those grouped under 5.1, 5.2, 5.3 and 5.4 wherever such a worker is available, i.e., within CD Blocks or Development Areas, provided:

(a) an adequate amount of subject-matter training content is injected into his pre-service training, and

(b) sufficient supervision is exercised on his field work, by the RHS technician at the sub-district level, including such supervision as may constitute periodic in-service training courses, dictated by seasonal needs.

Item 5.4 (5) could be similarly handled by the voluntary recruitment and training, in hygienic methods, of the traditional rural midwives (Dai's) in several short, annual, peripatetic courses, at sub-district levels, which may aim at teaching a specific number of skills at a time, and for attending which, certificates may issue to the successful "Dai's", on the general understanding that after a given number of years, no uncertified "Dai's" would be authorized to practice within that territory.

In areas (or countries) where such front-line MPVW's do not exist, lay leaders, especially those represented in or selected by statutory local governments or informal popular village councils, should be asked to undertake, on the basis of a small remuneration, the same type of training and functions in the field of health and sanitation, as the MPVW and then to operate through the local government or village council, so as to meet the maximum response and participation from village people.

If such a solution is acceptable, as an interim arrangement, till such time as the rural health service out of its own resources can train and place a front-line health technician directly at the village level, then the immediate problem for the RHS would be, to directly undertake functions described at 5.5 above, in addition to supervising those under 5.1, 5.2, 5.3, and 5.4.

6.4 Tie up with rural health units

Now, the generally accepted scheme already in usage within the region, for supply of rural health services, i.e., the scheme for establishing rural health units (RHU's), is indeed a very sound scheme. It may be recalled that at the Regional Rural Health Conference, held at New Delhi, 14-26 October 1957, "Each country stated that a rural health unit should serve 20 000 to 60 000 persons. In practice, however, a health unit is covering population groups of 30 000 to 200 000. The plans as stated, provide for a comprehensive health service with a staffing pattern adequate to carry out the activities. Again in practice, with the slender resources in trained personnel and funds, it is obvious that only minimal

services can be rendered by skeleton staffs .... when accomplishments were evaluated, such presentations created a false impression of adequacy ..... the limitations of the existing organization should be recognized. The value of health unit in rural areas lay in being able to bring health services to families in their homes and villages and to stimulate the interest and co-operation of the people ..... the chief obstacle would be the inability to obtain sufficient number of trained staff to maintain an effective service. That sufficient staff or funds could be secured immediately, was considered unlikely."[1]

Clearly, therefore, the two large impediments to the expansion of RHU's are trained technicians and adequate funds, both of which are likely to need a long time to overcome. It would therefore seem that:

(a) The expansion and territorial coverage of the RH units, would need to be staggered and made so selective, conforming to the availability of funds and personnel, that optimum results are achieved with the minimal output.

(b) The variety of health services supplied within these units, should again be so selective and limited, (and gradually expanded from time to time), as to cater to only such services as the set priorities and needs, as also the available trained personnel and resources, will dictate.

(c) Supplementary, supporting, semi-trained, extension services if available, without extra cost should be used for the interim period to fill up this gap-both technical and territorial.

(d) Local rural resources in land, labour, material and buildings should be tapped to supplement the resources of RHS budgets, so that the capital charge on the RHS budgets is minimized and funds released for actual services and supplies.

6.5 Some further possible solutions

With regard to (a) we feel that maximum impact is possible by selecting on priority, such areas where the people, their organizations and the administrative structure of the government have already so prepared themselves educationally, psychologically and administratively, as to be in the position to accept, with the least possible resistance or wastage in transit, the maximum amount of services made available to them. These are the well-organized CD Blocks or Development areas and we would therefore suggest that the RHS select for their RHU projects, only such Development Areas as have already been in operation for some years under CD, (or in its absence, under well-organized local governments).

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[1] WHO Regional Office for South-East Asia (1958) Report on regional rural health conference, New Delhi, India, 14-26 October 1957.

With regard to (b), we feel that it is primarily within the competence and responsibility of the health department to assess the priority of these services, so as to strike a balance between their financial resources and training potential on the one side, and needs of specific selected development areas on the other. Such an assessment would inter alia enable the health department also to draw up long-term realistic plans and priorities for the training of their personnel and expansion of an increasing variety of services in the rural areas.

With regard to (c), as already indicated, the MPVW is a sound, ready-made, cost-free, and well-organized material to use as an extension agent and a first-aider, in fields in which immediate RHS, down to the village level is not feasible directly under the departmental resources - subject of course (as earlier stated) to adequate pre-service training and supplementary in-service training and field supervision by the technician located at the RH Unit or at the sub-district level.

With regard to (d), the offer of starting a RHU in a CD Block or Development Area, should be in the nature of an incentive to the rural people, so that only such Development Areas should be selected on a priority, where people are most readily agreeable to offer lands, buildings and even some part of the maintenance expenditure, for RHU units, on the basis of a self-help programme.

In fact, the above-cited conference report recognized this situation (page 15) and stated that "With a small staff, the necessity for co-ordinating the functions of the health unit with existing community health services under voluntary or other governmental auspices becomes the more imperative ..... The health interests or potential health assistance of community groups in the area - teachers, welfare workers, home economists, village workers in development projects - should also be stimulated, as such groups have many opportunities to work on health improvement. The health unit should provide the direction for these groups and should supervise their health activites." Again (page 16), ".....all resources of the community should be utilized. Special reference was made to teaching to village workers engaged in development projects or agricultural extension the simple methods of well construction, latrine installation and the providing of soakage pits, compost piles and drainage facilities, which they could perform under the supervision of the sanitarian."[1] Thus, it will be seen that in effect what we are recommending in this paper is only an "extension" of this recognition into a practical programme for implementing rural health services.

6.6 Supporting examples

In varying forms, depending on the different stages of development of the CD and RHS programmes in the countries of the region, some such integration is already noticeable:

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[1] WHO Regional Office for South-East Asia (1958) Report on regional rural health conference, New Delhi, India, 14-26 October 1957.

In India, "It was through CD planning that health services began to reach into remote rural areas ..... It was the setting up of CD blocks and the placing of primary health centres at Block headquarters which made village people aware of some nearly available services instead of having to journey to ..... While every block needs a primary health centre, only 27 per cent of the blocks at present have these centres ... to each of these centres should be attached three sub-centres ..... In some areas the villagers have been so enthusiastic about the services provided in the primary health centres, that they have come forward with offers of voluntary labour to help build the centres."[1]

In Pakistan, the establishment and extension of Rural Health Centres was carried out on the basis of giving priority of location to Village AID Development Areas, especially such, as provided an equitable geographic spread over the country and those where most enthusiastic popular support was available, e.g. in contribution of land and buildings.

In Ceylon, where the core of the rural development programme is not the multi-purpose village worker, but the village organizations, and the technical service personnel are required to operate mainly through them, "public health inspectors reported that they were invited from time to time to address Rural Development Society meetings on health topics and most of them received generally good co-operation ..... We did find societies which had built dispensary buildings and others which were agitating for the provision of health services nearer to their villages... The programme consists of protected wells, latrines, use of boiled cooled water, compost pits and adequate ventilation and it is carried to the villages by the public health inspectors and adopted as their programme by Rural Development Societies and the Manila and Kantha Women's Societies."[2]

But in making these proposals, let us not forget the vital role of co-ordination. "The need for co-ordination (i.e. concerted action by different entities without loss of organizational identity) among government agencies exists .... it is particularly vital in integrative and some adaptive type programmes, in which the regular technical services have an important role ... Co-ordination is needed at two vital points - at the top level of policy-making and at the level of execution in the field ..... Co-ordination at the top is concerned mainly with harmonizing and synchronizing policies, plans and programmes, whereas co-ordination in the field is concerned mainly with personal and community relations ..... and other elements affecting the execution of related programmes."[3]

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[1] Coldwell J., Dumont R., and Read M. (1960), Report of a community development evaluation mission in India, 23 November 1958 - 3 April 1959 (Document TAO/IND/31, Rev.1, paragraphs 292-298)

[2] Evaluation by a United Nations team of experts - (unpublished as of August 1962)

[3] United Nations, Office of Public Administration (1959) Public administration aspects of community development programmes, (Document ST/TAO/M/14, paragraphs 41/42).

7. CONCLUSIONS

In sum, therefore, we propose for consideration and exploration on part of this august body, some suggestions on the following lines:

(a) Assess the total RHS problem, i.e. territorial coverage and technical supplies and services within each of the countries of the region, in relation to available or potential resources, both financial and technical.

(b) Determine such of the technical service functions at the village level, which in view of shortage of trained personnel and resources, can be safely "de-technicalized" for handling by semi-trained technicians like the MPVW's, under appropriate technical supervision and guidance from the sub-district level.

(c) With the above data in hand, plan on the basis of a possible, staggered, 100% RHU coverage, territorial as well as technical, (services and supplies) within say 20 years from today. Thus determine the extent to which the programme for each year of the Decade of Development, can be fulfilled from within the anticipated departmental resources, supplemented by the various technical assistance programmes, and therefore the extent of shortfalls for which it must acquire extra-departmental governmental support, especially at the field levels (both for territorial coverage as also for the types of "de-technicalized" services that can be rendered from time to time).

(d) To the extent of such shortfalls, undertake joint planning with the appropriate rural development, community development or local government department (as applicable) in each country, so that such department may assume the supporting or supplementary role.

(e) Such joint planning should categorically work out:

(i) the rural health service functions at the village level that should remain the full responsibility of the Health Department and the functions which the front-line MPVW (or local government worker) should assume from time to time, by way of a supporting service. This understanding should be clearly reflected in readjustment of upper-level departmental policies and in the lower level areas of responsibility, of technical personnel as well as the MPVW's. The progression under which some or all of the functions allotted to the MPVW would revert back to the RHS, as and when the resources of the Health Department permits, will also need to be clearly spelt out.

(ii) the pre-service and in-service training in the fields of health and sanitation, which the MPVW will need to undertake, the ways and means of imparting such training and the extent to which the Health Department would assist in the training.

(iii) the extent of technical (as distinct from administrative) field-level supervision of the MPVW, which must be exercised by the RHU technician at the RHC or sub-district level; the ways and means of exercising such supervision and the relationship of that official with the CD Block officer or Area Development Officer.

(iv) the back-stopping technical services and supplies including educational and first-aid material, which must be provided to the MPVW for performing the front-line functions allotted to him.

(v) the orientation training in community development methods and team-work, which must be provided the technical supervisory personnel of the RHS and the ways and means of providing such training.

(f) Start the establishment of Rural Health Units on priority, within CD Blocks or Development Areas that have been in operation for 3/4 years, upon the undertaking by the people or their organizations, to provide free land and buildings for housing the units, to meet some portion of its maintenance expenditure, and to provide free manual labour for RH projects whenever required, e.g. teams of Sprayers and anti-malaria campaigns. (In fact the RHU budgets should not include any item of expenditure for employment of labour or for construction of buildings.) The CD personnel would be the negotiators of such popular support.

(g) In Development Areas, where the RHU's cannot come into operation for some time, attempt should be made to place one trained health technician at the Development Area level, to work (as an equal member of the Development Officers' team) directly with the MPVW's, till such time as the RHU can be established there.

(h) Plan from the long-term point of view, to increasingly decentralize the rural health services and make them the administrative, financial and co-ordinating responsibility of statutory local self-government units, like the Basic Democracies of Pakistan, Barrio Councils of the Philippines, Panchayats of India and Farmers' Associations of China (Taiwan), so that the future programme-planning and implementation of local health projects is carried out at the grass-root levels by the people themselves

albeit with the guidance of the MPVW and under the supervision of the RHS technician,

Thus as a joint venture, we may still be able to meet this gigantic problem, the solution of which seems so elusive as a sole venture for "going it alone."

APPENDIX 1

RURAL POPULATION AND HEALTH BUDGETS IN THE ECAFE REGION

Country	Population (in millions) Total[1]	Urban[1]	By deduction Rural	Villages	Rural & Urban Health Budgets percentage of Gov't Budgets	percentage of GNP
Afghanistan	-	-	7.8[o]	17 300[o]	-	-
Burma	14.6	1.5	13.1	30 000[x]	2.5	0.9
Cambodia	4.7	0.6	4.1	10 000[x]	-	-
Ceylon	8.9	1.6	7.3		-	-
China (Taiwan)	9.1	5.1	4.0		-	-
Fed. of Malaya	6.2	2.7	3.5	1 000[x]	-	-
Hong Kong	0.8	0.7	0.1	-	-	-
India	356.9	61.9	295.0	600 000[o]	4.0	0.6
Indonesia	95.2	7.0[o]	88.2			-
Iran	18.9	5.7	13.2		-	-
Japan	89.5	50.3	39.0		2.2	0.5
Laos	1.5[x]	0.2[o]	1.3	8 432[x]	-	-
Mongolia	-	-	-		-	-
Nepal	8.4	0.2	8.2		-	-
North Borneo	0.3	-	0.3		-	-
Pakistan	75.8	7.9	67.9	100 000[o]	-	-
Philippines	21.6	7.6	14.0	24 000[o]	6.7	0.3
Republic of Korea	21.5	6.9	14.6		1.0	0.2
Sarawak	0.5	-	0.5		-	-
Singapore	1.6	1.0	0.6		14.3	-
Rep. of Vietnam	12.0[x]	1.0[o]	11.0	17 000[o]	4.7	0.7
Thailand	25.5	3.0	22.5	50 000[x]	3.0	0.5
T O T A L			616.2	1 200 000[b]		

Index:
1 Demographic Year Book 1960 UN
2 Report on the World Social Situation UN. 1961.
x ST/TAO/Ser,D/35 CD Services in Mainland S.E. Asia.
o Miscellaneous estimates and assumptions.
b Averaged on the Indian rate of 500 population per village (Pakistan being 680;Thai,440;Vietnam,700;Philippines, 800 per barrio).

Note: (1) Blank signals indicate no statistics are available.

(2) The standard of population per village differs in different countries, for the purpose of statistical computations. Generally several scattered hamlets or sitios or dens of smaller sized communities will be grouped together as one village.

ANNEX IV

UNICEF AID FOR RURAL HEALTH

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1. INTRODUCTION

Assistance for the establishment and improvement of permanent rural health services has been an important part of UNICEF's programme since it began work in Asia in 1949. The reasons are two: (1) 80 per cent of the population of developing countries live in rural areas where, because of the scarcity of medical assistance, a great price is being paid in mothers' and children's lives; (2) a base is required to maintain control over communicable diseases when the mass campaigns against various diseases are concluded.

UNICEF's assistance for rural health services began with the rehabilitation of existing midwifery and maternal and child health centres which were poorly equipped. At the same time, UNICEF assisted demonstration and training projects and provided equipment to existing institutions training para-medical personnel. In the second phase, UNICEF equipped new centres, mostly small ones, that governments and voluntary agencies established. The third important stage was reached when governments planned to build comprehensive rural health services as part of their community development programmes.

UNICEF assistance is available for:

(1) establishment or improvement of maternal and child health and welfare services;

(2) training of all categories of personnel from planning and supervisory personnel to auxiliary workers;

(3) environmental sanitation through improvement of village water supplies, excreta disposal, and related community health education.

2. EQUIPMENT FOR CENTRES AND HOSPITALS

A typical pattern of rural health services developed in Asia consists of a main centre with several village sub-centres and midwifery centres, with district health organization to supervise and provide supporting services, for a population of about 30 000 to 50 000.

UNICEF assistance is available for all aspects of rural health services within the framework above. Two liits have been developed for each type of centres: standard and special. The standard list includes an examination table, adult/baby scales, sterilizer, stretcher, basins, bowls, trays, sheeting, apron, bottles, thermometers, syringes, needles, forceps, UNICEF midwifery kit, etc. Special items are those such as refrigerators, reference books, laboratory equipment, dental equipment, sewing machines, bicycles, and motor vehicles for supervision.

The lists have been developed in consultation with WHO and various governments, with an eye to what can be used within the limits of safety by the staff available at each centre.

- For a small centre staffed by a nurse or a midwife only, not regularly supervised by a doctor, simple equipment to the extent of $50 is provided. Special items might cost another $80.

- For a small centre of the same staffing but regularly supervised by a doctor, the "routine" items will total $125, and special items an additional $80.

- For a higher type of centre staffed by a doctor or by a health assistant with three years training plus 2 para-medical personnel (of whom at least one is a nurse or midwife), routine equipment up to $300 is provided. Special items including a refrigerator, laboratory equipment and supplies, and simple dental equipment would cost another $500.

- It is expected that a main centre will have a minimum staffing of a doctor with public health orientation (or a senior health or medical assistant with four years' training or more), a nurse or health visitor, a midwife, and a sanitary inspector.

- For a centre so staffed, the basic equipment will cost about $400, while special items may cost up to $3000. Special items for a main centre include a motor vehicle (where the main centre staff is responsible for the supervision of at least two sub-centres), dental equipment costing about $600, laboratory supplies, refrigerator, reference books, bicycles, a sewing machine, etc.

In addition, UNICEF also provides a limited range of consumable supplies such as drugs and diet supplements, vitamin A and D capsules. UNICEF also pays freight charges on all supplies, including skim milk powder (which is donated free of cost by other governments - mostly the United States of America).

UNICEF assistance can be requested for hospitals engaged in rural health work. For a 25-bed hospital at the main centre or at the district headquarters, and which operates a referral system with the health centres, equipment to a maximum of $5000 is provided. Assistance on a much more limited scale can be given to district laboratories doing diagnostic work for rural health centres.

3. AID FOR TRAINING

Recognizing that rural health services can grow only as fast as trained staff become available, UNICEF provides assistance for training in several fields, mainly hospitals training nurses and midwives. Equipment up to $14 000 can be provided to training hospitals, with 100 beds or more, which graduate at least ten persons a year. Smaller hospitals will be assisted proportionately, subject to a minimum bed capacity of 50 (25 maternity and 25 paediatric beds) and 10 graduates at minimum per year. For hospitals associated with medical colleges, UNICEF can assist the departments of preventive medicine and maternity and paediatric departments.

For nurses' schools, equipment can be provided up to $2000, and for midwives training schools to about $1700 including teaching equipment, ward demonstration equipment, visual aids, and books. Where external help is urgently needed, UNICEF can also provide stipends for internal training, special orientation and re-training courses, fees for external lecturers, and subsidies for paediatric departments where governments undertake to maintain the increased salary level at their own cost after a maximum period of three years.

4. ENVIRONMENTAL SANITATION

For programmes of environmental sanitation through improvement of village water supplies, excreta disposal, and related community health education, UNICEF assistance is in the form of pumps, pipes, fittings, couplings, and kits for sanitarians. Power pumps can be provided on a community basis, but connexion of water supplies to individual households will be beyond UNICEF's range of assistance. For excreta disposal, UNICEF can help with latrine materials, for schools, Maternal and Child Welfare (MCW) centres, etc., for demonstration and educational purposes. Supply lists for environmental sanitation programmes are normally drawn up for each project to fit its own requirements.

UNICEF's global commitments in 1961 alone for all types of health services projects, including environmental sanitation, was $10.9 million. For countries in the WHO Western Pacific Region, UNICEF allocations increased from $275 000 in 1958 to $524 000 in 1961. For 1962, if all requests for allocation by the UNICEF Executive Board are granted, allocations will total $1 342 400. There is room, therefore, for a larger volume of UNICEF aid in the field of rural health if good programmes can be developed.

The costs of equipment given in this paper are those paid by UNICEF. They are often far below commercial prices and they do not include freight and insurance.

5. GOVERNMENT MATCHING

UNICEF aid is given within the context of firm programme plans for which governments commit from their own resources all necessary buildings, staff, and local costs. On average, the cost to governments of their contributions to projects assisted by UNICEF is two to three times the UNICEF contribution. The minimum matching requirement is that governments contribute <u>new</u> money to at least the landed value of UNICEF's aid.

ANNEX V

LIST OF OTHER WORKING PAPERS FOR THE SEMINAR

1. The Organization and Administration of Health Services in Rural Areas by Dr. Thomas Evans, Seminar Director and Consultant on Public Health Administration.

2. The Role of the Public Health Nurse and the Midwife in Family Health Services in Non-Urban Areas by Miss Zella Bryant, Seminar Consultant on Public Health Nursing.

3. Approaches to Environmental Health Problems in Rural Areas by Mr. James Arbuthnot, Regional Adviser on Environmental Health and Seminar Consultant.

4. Training Needs of Professional and Auxiliary Health Personnel for Rural Health Services in the Region by Dr. Arturo C. Reyes, Regional Adviser on Education and Training.

ANNEX VI

SUMMARY OF EVALUATION OF THE SEMINAR ON RURAL HEALTH SERVICES

Following the end of the seminar, a questionnaire was distributed for completion by the participants (twenty in number) and the observers (nine in number), in order to assess the administrative and technical aspects and the immediate effect of the seminar.

There were four columns for each question which indicate whether the seminar was considered excellent, good, fair or poor in terms of its arrangements and in respect of its effect (Appendix 1 and 2). The respondents were requested to check the appropriate statements and to give their frank criticisms, suggestions and comments, as the forms were to be unsigned.

The questions reflecting the organization and administration of the seminar received 300 replies, of which 55.4% indicated that the seminar arrangements were "excellent", 40.3% "good", 3.0% "fair" and 1.3% "poor" (see Appendix 1).

The questions relating to the seminar's technical aspects and reflecting its immediate effect collected 181 replies, of which 44.8% considered the effect of the meeting "excellent", 52.4% "good", 2.2% "fair" and 0.6% "poor" (see Appendix 2).

From the above results of analysis and from the suggestions and comments made by the participants and observers, it may be concluded that on the whole the seminar was very successful in its organization and administration as well as in its immediate achievements.

APPENDIX 1

NUMBER OF REPLIES TO QUESTIONS RELATING TO ADMINISTRATIVE ASPECTS OF THE SEMINAR

Statement	Definitely	Generally	Generally not	Definitely not
1. Travel arrangements were	Satisfactory 17	Satisfactory 7	Satisfactory 2	Satisfactory 0
2. Reception arrangements on arrival were	Helpful 22	Helpful 4	Helpful 0	Helpful 0
3. The residential accommodation at the Teachers' Hostel was	Adequate 5	Adequate 13	Adequate 4	Adequate 0
4. Meals at the Teachers' Hostel were	Satisfactory 2	Satisfactory 16	Satisfactory 1	Satisfactory 3
5. Postal and communications arrangements at the Teachers' Hostel were	Convenient 21	Convenient 4	Convenient 0	Convenient 0
6. The seminar accommodation was	Adequate 17	Adequate 8	Adequate 0	Adequate 1
7. The working hours were	Satisfactory 16	Satisfactory 8	Satisfactory 2	Satisfactory 0
8. The documentations for the Seminar were	Useful 15	Useful 11	Useful 0	Useful 0
9. The library which provided reference documents in connexion with the discussions was	Adequate 11	Adequate 13	Adequate 0	Adequate 0
10. The field trips organized for the Seminar were	Well planned and conducted 14	Well planned and conducted 11	Well planned and conducted 0	Well planned and conducted 0
11. The length of the Seminar was	Right 11	Right 15	Right 0	Right 0
12. The entertainments were	Excellent 15	Excellent 11	Excellent 0	Excellent 0
Total	166	121	9	4 3
Percent	55.4	40.3	3.0	1.3 1

TO

APPENDIX 2

NUMBER OF REPLIES TO QUESTIONS RELATING TO TECHNICAL ASPECTS OF THE SEMINAR

Statement	Definitely	Generally	Generally not	Definitely not
. The major problems involved in the field of rural health services were	Covered by the main topics 12	Covered by the main topics 12	Covered by the main topics 1	Covered by the main topics 1
. The methods used during the Seminar were	Effective 10	Effective 16	Effective 0	Effective 0
. Opportunities provided for all to put forward any ideas were	Adequate 8	Adequate 17	Adequate 1	Adequate 0
. The opportunities to discuss problems and exchange ideas with the group were	Valuable 15	Valuable 11	Valuable 0	Valuable 0
. The opportunities for association and working with the staff, participants and observers were	Adequate 15	Adequate 10	Adequate 1	Adequate 0
. My understanding of rural health problems has been	Broadened 14	Broadened 12	Broadened 0	Broadened 0
. New ways of dealing with rural health problems in my own situation have been	Brought out 7	Brought out 17	Brought out 1	Brought out 0

				TOTAL
Total	81	95	4	1 181
Percent	44.8	52.4	2.2	0.6 100.